

General Studies



Compiled By:

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About India.

India is a country in South Asia. It is the Seventh-Largest country by area and second-largest by population and most populous democracy in the world.

Home to the Indus Valley Civilization and a region of historic trade routes and vast empires, the Indian subcontinent was identified with its commercial and cultural wealth for much of its long history. Four major world religions, Hinduism, Buddhism, Jainism and Sikhism originated there, while Zoroastrianism, Judaism, Christianity and Islam arrived in the first millennium CE and shaped the region's diverse culture.

India got its independence on August 15th, 1947. It was the day when the Indians got liberated from the rule of the British.

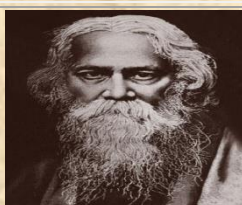
Agriculture is not only the dominant occupations of the people of India but is also one of the most important economic sectors for the country.

India: At a Glance	
Capital	New Delhi
Area	32,87,263 sq.km
Area wise in the world	7th
Location	India extends between latitudes 8°4'N and 37°6'N. It is a country of the east with its landmass lying between longitudes 68°7'E and 97°25'E.
Stretch	3,214 Kilometers from north to south 2,933 Kilometers from east to west
Land Frontier	15,200 km
Coastline	7516.5 km
Neighbouring Countries	India shares its political borders with Pakistan and Afghanistan on the west and Bangladesh and Myanmar on the east. The northern boundary is made up of the Sinkiang province of China, Tibet, Nepal and Bhutan. India is separated from Sri Lanka by a narrow channel of sea formed by the Palk Strait and Gulf of Mannar
Physical Feature	The mainland consists of four well-defined regions: (i)The great mountain zone, (ii)The Indo-Gangetic plain, (iii)The desert region and (iv)The Southern Peninsula

Rivers	The main rivers of the Himalayan group are the Indus, the Ganga and the Brahmaputra.
Climate	There are four seasons which are recognised by the India Meteorological department. They are - Cold weather, hot weather, rainy season and the season of the retreating south-west monsoon.
Fauna	Approx. 89,451 species
National Parks	94
Wildlife Sanctuaries	501
Official Languages	Hindi
Population (2011 census)	Total 1,210,569,573 Males 623,121,843 Females 587,447,730
Populationwise place in the world	2nd
Population density	382 person per square kilometer
Sex Ratio	943 females per 1000 males
Literacy	72.99%
Male Literacy	80.89%
Female Literacy	64.64%

Important facts about India at one go:-

Geography	
Location	
Area	3.3 Million sq. km

Telephone Code	+91	
Coastline	7516.6 km encompassing the mainland, Lakshadweep Islands, and the Andaman & Nicobar Islands.	
High Point	Kanchenjunga 8,598 m.	
National Things		
National Flag		The National Flag is the horizontal tricolor of deep saffron (kesaria) at the top, white in the middle, and dark green at the bottom in equal proportion. At the center of the white band is a navy blue wheel, which is a representation of the Ashoka Chakra at Sarnath.
National Emblem		The National Emblem of India is derived from the time of the Emperor Ashoka. The emblem is a replica of the Lion of Sarnath, near Varanasi in Uttar Pradesh. The Lion Capital was erected in the third century BC by Emperor Ashoka to mark the spot where Buddha first proclaimed his gospel of peace and emancipation to the four quarters of the universe.
National Anthem		The Jana Gana Mana is the national Anthem of India, composed by Rabindranath Tagore. It was officially adopted by the constituent Aseembly as the Indian national anthem on January 24, 1950.
National Song		Bankim Chandra Chatterji's composed song " <i>Vande Mataram</i> " was adopted as the National Song. It has an equal status with " <i>Jana Gana Mana</i> ". It was first sung in the 1896 session of the Indian National Congress.
National Animal		Tiger is the National Animal of India. It is symbol of India's wildlife wealth. The magnificent tiger, <i>Panthera tigris</i> , is a striped animal.
National Bird		The Peacock, <i>Pavo cristatus</i> , is the national bird of India. Emblematic of qualities such as beauty grace, pride.
National Fruit		Mango is the national fruit of India. Described as the "Food of the Gods", in the sacred Vedas, the fruit is grown almost in all parts of India.

National Flower		Lotus botanically known as the Nelumbo Nucifera is the national flower of India.																																																				
National Tree		Banyan Tree is the National Tree of India. This huge tree towers over its neighbours and has the widest reaching roots of all known trees.																																																				
National Calender	<table><thead><tr><th></th><th>Month</th><th>Length</th><th>Start date (Gregorian)</th></tr></thead><tbody><tr><td>1</td><td>Chaitra</td><td>30/31</td><td>March 22*</td></tr><tr><td>2</td><td>Vaisakhi</td><td>31</td><td>April 21</td></tr><tr><td>3</td><td>Jyesthina</td><td>31</td><td>May 20</td></tr><tr><td>4</td><td>Ashadha</td><td>31</td><td>June 20</td></tr><tr><td>5</td><td>Shraavana</td><td>31</td><td>July 21</td></tr><tr><td>6</td><td>Bhadrapad</td><td>31</td><td>August 21</td></tr><tr><td>7</td><td>Ashwin</td><td>30</td><td>September 21</td></tr><tr><td>8</td><td>Kartik</td><td>30</td><td>October 20</td></tr><tr><td>9</td><td>Margashirsha (Maghshirash)</td><td>30</td><td>November 20</td></tr><tr><td>10</td><td>Poush</td><td>30</td><td>December 20</td></tr><tr><td>11</td><td>Magh</td><td>30</td><td>January 21</td></tr><tr><td>12</td><td>Phalgun</td><td>30</td><td>February 20</td></tr></tbody></table>		Month	Length	Start date (Gregorian)	1	Chaitra	30/31	March 22*	2	Vaisakhi	31	April 21	3	Jyesthina	31	May 20	4	Ashadha	31	June 20	5	Shraavana	31	July 21	6	Bhadrapad	31	August 21	7	Ashwin	30	September 21	8	Kartik	30	October 20	9	Margashirsha (Maghshirash)	30	November 20	10	Poush	30	December 20	11	Magh	30	January 21	12	Phalgun	30	February 20	The Saka calender is the national calender of India. It is used, alongside the Gregorian calender.
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National Days.	26th January (Republic Day) 15th August (Independence Day) 2nd October (Gandhi Jayanti; Mahatma Gandhi’s Birthday)																																																					
National Aquatic - Dolphin National Game – Field hockey National River - Ganga National Sweets - Jalebi National drink – Tea																																																						
Government																																																						
Country Name	Republic of India; Bharat Ganrajya																																																					
Government Type	Sovereign Socialist Democratic Republic with a Parliamentary system of Government																																																					
Capital	New Delhi																																																					
Official Language	Hindi, English																																																					
Administrative Division	28 States and 7 Union Territories.																																																					
Independence	15th August 1947 (From the British Colonial Rule)																																																					

Constitution	The Constitution of India came into force on 26th January 1950.
Legislature	Sansad
Legal System	The Constitution of India is the fountain source of the legal system in the Country.
Executive Branch	The President of India is the Head of the State, while Prime Minister is the Head of the Government, and runs office with the support of Council of Ministers who form the Cabinet Ministry.
Legislative Branch	The Indian Legislature comprises of the Lok Sabha (House of the people) and the Rajya Sabha (Council of States) forming both the Houses of the Parliament.
Judicial Branch	The Supreme Court of India is the apex body of the Indian legal system, followed by other High Courts and subordinate Courts.

Following are first in India happenings

Male

The first President of Indian Republic	Dr. Rajendra Prasad
The first Prime Minister of free India	Pt. Jawahar Lal Nehru
The first Indian to win Nobel Prize	Rabindranath Tagore
The first President of Indian National Congress	W.C. Banerjee
The first Muslim President of Indian National Congress	Badruddin Tayyabji
The first Muslim President of India	Dr. Zakir Hussain
The first British Governor General of India	Lord William Bentinck(1833-1835)
The first British Governor General of Bengal	Lord Warren Hasting(1774-1885)
The first British Viceroy of India	Lord Canning
The first Governor General of free India	Lord Mountbatten
The first and the last Indian to be Governor General of free India	C. Rajgopalachari
The first man who introduced printing press in India	James Hicky
The first Indian to join the I.C.S	Satyendra Nath Tagore
India's first man in Space	Rakesh Sharma
The first Prime Minister of India who resigned without completing the full term	Morarji Desai

The first Indian Commander-in-Chief of India	General Cariappa
The first Chief of Army Staff	Gen. Maharaj Rajendra Singhji
The first Indian Member of the Viceroy's executive council	S.P.Sinha
The first President of India who died while in office	Dr. Zakir Hussain
The first Muslim President of Indian Republic	Dr. Zakir Hussain
The first Prime Minister of India who did not face the Parliament	Charan Singh
The first Field Marshal of India	S.H.F. Manekshaw
The first Indian to get Nobel Prize in Physics	C.V.Raman
The first Indian to receive Bharat Ratna award	Dr. Radhakrishnan
The first Indian to cross English Channel	Mihir Sen
The first Person to receive Jnanpith award	Sri Shankar Kurup
The first Speaker of the Lok Sabha	Ganesh Vasudeva Mavalankar
The first Vice-President of India	Dr. Radhakrishnan
The first Education Minister	Abdul Kalam Azad
The first Home minister of India	Sardar Vallabh Bhai Patel
The first Indian Air Chief Marshal	S. Mukherjee
The first Indian Naval Chief	Vice Admiral R.D. Katari
The first Judge of International Court of Justice	Dr. Nagendra Singh
The first person to reach Mt. Everest without oxygen	Sherpa Anga Dorjee
The first person to get Param Vir Chakra	Major Somnath Sharma
The first Chief Election Commissioner	Sukumar Sen
The first person to receive Magsaysay Award	Acharya Vinoba Bhave
The first person of Indian origin to receive Nobel Prize in Medicine	Hargovind Khurana
The first Chinese traveller to visit India	Fahein
The first person to receive Stalin Prize	Saifuddin Kitchlu
The first person to resign from the Central Cabinet	Shyama Prasad Mukherjee
The first person to receive Nobel Prize in Economics	Amartya Sen
The first Chief Justice of Supreme Court	Justice Hiralal J. Kania
The first Indian Pilot	J.R.D. Tata (1929)

Female

The first lady to become Miss World	Rita Faria
The first woman judge in Supreme Court	Mrs. Meera Sahib Fatima Bibi
The first woman Ambassador	Miss C.B. Muthamma
The first woman Governor of a state in free India	Mrs Sarojini Naidu
The first woman Speaker of a State Assembly	Shanno Devi
The first woman Prime Minister	Mrs Indira Gandhi
The first woman Minister in a Government	Rajkumari Amrit Kaur
The first woman to climb Mount Everest	Bachhendri Pal
The first woman to climb Mount Everest twice	Santosh Yadav
The first woman President of Indian National Congress	Mrs Annie Besant
The first woman pilot in Indian Air Force	Harita Kaur Dayal
The first woman Graduates	Kadambini Ganguly and Chandramukhi Basu, 1883
The first woman Airline Pilot	Durba Banerjee
The first woman Honours Graduate	Kamini Roy, 1886
The first woman Olympic medal Winner	Karnam Malleswari, 2000
The first woman Asian Games Gold Medal Winner	Kamlijit Sandhu
The first woman Lawyer	Cornelia Sorabjee
The first woman President of United Nations General Assembly	Mrs Vijaya Laxmi Pandit
The first woman Chief Minister of an Indian State	Mrs Sucheta Kripalani
The first woman Chairman of Union Public Service Commission	Roze Millian Bethew
The first woman Director General of Police	Kanchan Chaudhary Bhattacharya
The first woman Judge	Anna Chandy (She became judge in a district court in 1937)
The first woman Cheif Justice of High Court	Mrs Leela Seth (Himachal Pradesh High Court)

The first woman Judge in Supreme Court of India	Kumari Justice M. Fathima Beevi
The first woman Lieutenant General	Puneeta Arora
The first woman Air Vice Marshal	P. Bandopadhyaya
The first woman chairperson of Indian Airlines	Sushma Chawla
The first woman IPS officer	Mrs. Kiran Bedi
The first and last Muslim woman ruler of India	Razia Sultan
The first woman to receive Ashoka Chakra	Nirja Bhanot
The first woman to receive Jnanpith Award	Ashapurna Devi
The first woman to cross English Channel	Aarti Saha
The first woman to receive Nobel Prize	Mother Teresa
The first woman to receive Bharat Ratna	Mrs Indira Gandhi
The first woman to receive Jnanpith Award	Ashpurna Devi

First in Others

First Wax statue of a Living Indian	Mahatma Gandhi at Madame Tussaud's in 1939
First Chinese pilgrim to Visit India	Fa-hien
First Exclusive internet magazine	Bharat Samachar
First Miss India to participate in Miss Universe	Indrani Rehman
First President of Indian National Congress	W.C. Bannerjee, 1885
First Muslim President of the Indian National Congress	Badruddin Tayyabji
First Judge in International Court of Justice	Dr. Nagender Singh
First Graduate in Medicine	Soorjo Coomar Goodeve Chukerbutty

India's First University	Nalanda University
India's First Open University	Andhra Pradesh Open University
India's First Lok Sabha Member to be elected with a record maximum number of votes	P.V.Narasimha Rao
First Indian to reach Antarctica	Lt. Ram Charan
First British to Visit India	Hawkins
First Test tube baby of India	Indira (Baby Harsha)
First Post Office Opened in India	Kolkata(1727)

First President of India	Dr. Rajendra Prasad (1950-1962)
First Prime Minister of India	Jawaharlal Nehru (1947-1964). The first term lasted till 1952 after which he was re-elected.
First Vice President of India	Dr. S Radhakrishnan
First Deputy Prime Minister of India	Vallabhbhai Patel
First Prime Minister to be voted out of Office	India Ghandi (1977) when the Indian National Congress lost to he Janta Party.
First Sikh Prime Minister	Manmohan Singh
First Sikh President	Giani Zail Singh
First Non-Congress Government	by Janta Party with Morarji Desai as the Prime Minister (1977-1980)
First Prime Minster of India resigned without completing his full term	Morarji Desai

First Prime Minister to lead a minority government for a full term(five years)	P.V. Narasimha Rao, June 21, 1991 to May 16 1996
First Prime Minister from South India	P.V. Narasimha Rao, June 21, 1991 to May 16 1996
First Governor-General	Warren Hastings
First British Governor-General	Lord William Bentick
First British Viceroy of India	Lord Canning
First Governor General of Independent India	Lord Mountbatten, 1947
First and Last Indian Governor-General of Indian Union	C Rajagopalachari, 1948
First Chief Justice of India	Justice Hiralal J Kania
First Indian to pass ICS	Surendra Nath Banerjee
First Indian ICS Officer	Satyendranath Tagore, 1863
First Speaker of Lok Sabha	Shri G.V. Mavlankar
First Finance Minister of Independent India	Shri R.K.Shanmukhan Chettys
Presentation of First Budget after India's Independence	Shri R.K.Shanmukhan Chettys on Nov. 26, 1947
First President to die in Office	Dr. Zakir Hussain
First Prime Minister who did not face the Parliament	Charan Singh
First Chief Justice of Supreme Court to become President of India	Justice M Hidaytullah

First Education Minister	Abul Kalam Azad
First Home Minister	Sardar Vallabhbhai Patel
First Chief Election Commissioner	Sukumar Sen
First Minister to regin from Union Cabinet	Shyama Prasad Mukherjee (1950)

First Noble Prize Winner	Rabindranath Tagore for the Noble Prize in Literature, 1913. He was also the first Asian to get the Prize.
First Noble Prize in Physics	C.V. Raman in 1930
First Noble Prize in Medicine	Har Gobind Khorana in 1968. (Indian Born US Citizen)
First Noble Peace Prize	Mother Teresa in 1979. (Albanian nun, Indian Citizen)
First Noble Prize in Economics	Amartya Sen in 1998

First Hydroelectric Plant	On the Ganganachukki waterfall of the Sivasamudram Falls, Karnataka, built in 1902
First City to have electricity	Banglore, in 1906 (it was in fact the first city to have electricity)
First Man in Space	Rakesh Sharma aboard Salyut 7, on April 03, 1984. He was the 138th man in space world-wide.
First Women in Space	Kalpana Chawla aboard Space Shuttle Columbia flight STS-87, on November 19,1997 She was a naturalized United States citizen, and represented the US during the event.
First Test-tube baby	Durga Agarwal, born 1978
First Scienfific Expedition to Antarctica	1981

First Nuclear Reactor	Tarapur, Maharashtra
First Genetically Modified Food Product in India	Bt. Egg Plant Hybrid
First Satellite	Aryabhata, launched on April 19, 1975
First Satellite dedicated exclusively for educational services	EDUSET
First Successfully Indigenous Launch Vehicle	SLV-3
The first person in the world to land on the moon	Neil A. Armstrong and Edwin E Aldrin Jr of USA (Armstrong was the first to set foot on the moon followed by Aldrin) - July 21, 1969
First man to enter space (or the world's first cosmonaut)	Yuri Gagarin (Russian)
The first returnable space shuttle	Colombia
The first disabled satellite repaired in space	Solar Max
The first unmanned moon-buggy to explore surface of the moon	Lunokhod-I (Russia)
The first unmanned spaceship to have soft-landed and lifted off from the moon to return to earth.	Luna - 16 (Russia) (Sept. 21, 1970)
The first manned space vehicle to land on the moon	Lunar Exploration Module (LEM) nick named "Eagle"
The first country to send men on the moon	USA
The first to launch earth satellite or "artificial baby moon"	Russia

The first woman cosmonaut of the world	Valentina Tereshkova (Russian)
The first person to float in space	Alexei Lenov (Russian)
The first American astronaut (and second person in the world) to float in space	Edward White
The first country to launch a cosmic space rocket towards moon	USSR
The first space rocket to hit the moon	Lunik-II
The first spaceship in the world to sample moon's crust	Surveyor-3 (USA)
The first space vehicle to soft-land on Moon	Luna-9 (Russia)
The first space vehicle to orbite the moon	Luna-10 (Russia)
The first space-craft to leave solar system	Pioneer II
The first American manned spaceship to perform crew transfer in space	Apollo-9 (USA)
The first manned spacehip to perform space flight round the moon	Apollo-8 (USA)

First Olympic team medal	Gold for Hockey at the 1928 Summer Olympics Amsterdam, beating the Nethherlands.
First Olympic individual medal (in British India)	Norman Pritchard, 1900

First Olympic individual medal	Bronze by K.D. Jadhav for wrestling at the 1952 Summer Olympic Helsinki.
First Person to swim across the English Channel	Mihir Sen,
First Women to swim across the English Channel	Mihir Sen, 1958
First Formula I race driver	Narain Karthikeyan
First Formula I team	Force India F1
First A1 GP race victory	Narain Karthikeyan, Zhuhai, China, 2007
First Asian Games organised	Delhi (1951)
First in CHESS	
First Grandmaster Chess	Viswanathan Anand in 1988, at the age of 18
First FIDE World Chess Champion	Viswanathan Anand in December 2000
First Undisputed World Chess Champion	Viswanathan Anand in September 2007
First in TENNIS	
First Tennis Grand Slam title	Mahesh Bhupati (partnering with Japanese Rika Hiraki) in the Mixed Doubles category of the 1997 French Open
First Tennis Grand Slam win by a women	Nirupama Vaidyanathan beat Italian Gloria Pizzichini in the First round of 1998 Australian Open First Women in 4th round (highest as of 2008) of a tennis

Grand Slam event	Sania Mirza in the Singles Category of the 2005 US Open
First Tennis Grand Slam Junior title	Leander Paes in the Singles category of the 1990 Wimbledon Championship. He is also the only medal fetcher for India in the Atlanta Olympics. He won a bronze medal, the only medal that put India in the medal tally.
First Tennis Grand Slam Junior title by a women	Sania Mirza (partnering with Russian Alisa Kleybanova) in the Doubles category of the 2003 Wimbledon Championships.
First in CRICKET	
First Cricket tournament	The Bombay Triangular which Later became the Bombay Quadrangular (1912-1936)
First Cricket Test Match	Against England at Lord's June,25, 1932
First Cricket Captain	CK Nayudu for the 1932 tour of England
First Cricketer to score a century	Lala Amarnath in 1933 against England in South Bombay
First Cricketer to score a triple century	Vijay Hazare
First Test Cricket cricket hat-trick	Harbhajan Singh against Austrlia in March 2001
First Cricketer World Cup Championship Win	At the 1983 Cricket World Cup
First Batsman to complete 10,000 runs in Test Cricket	Sunil Gavaskar (he was the first in the world to achieve this feat.)
First Batsman to complete 10,000 runs in ODI Cricket	Sachin Tendulkar (he was the first in the world to achieve this feat.)

First Cricketer to score 100 Test and ODI centuries	Sachin Tendulkar
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First Miss World	Reita Faria in 1966
First Miss Universe	Susmita Sen in 1994
First Booker Prize	Arundhati Roy for The God of Small Things in 1997
First Bharat Ratna	Dr. Sarvepalli Radhakrishnan, C. Rajagopalachari, and Dr. C.V. Raman in 1954
First Foreigner to receive Bharat Ratna	Khan Abdul Ghaffar
First Person to receive Stalin Prize	Saifuddin Kitchlu
First Chevalier	Sivaji Ganesan
First Person to receive Jnapith Award	Shri Shankar Kurup
First Dadasaheb Phalke Award	Devika Rani in 1969
First Ashoka Chakra Award to a civilian (posthumous)	D.K. Jatar, captain of the sabotaged plane Kashmir Princess, for "most conspicuous bravery, daring and self-sacrifice."
First Magsaysay Award	Vinoba Bhave
First Winner of a major literary award in the United States	Dhan Gopal Mukerji
First Ford Supermodel of the World(contest)	Bipasha Basu, 1996

First Indian recipient of 'Oscar Award'	Bhanu Athaiya
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First Commander-in-Chief of Free India	General Sir Roy Bucher
First Indian Commander-in-Chief of Free India	General Kodandera Madappa Cariappa, 1949
First Chief of Air Staff	Air Marshall Sir Thomas Elmhirst
First Indian Chief of Staff	Air Marshall Subroto Mukerjee, 1954
First Chief of Naval Staff	Vice Admiral R D Katari
First Field Marshall of India	S.H.F. Manekshaw
First Person to receive Paramvir Chakra	Major Somnath Sharma
First Cosmonaut	Sqn Ldr Rakesh Sharma, 1984
First Atomic Submarine of India	INS Chakra
First Medium Range Missile	Agni
First Indian Missile	Prithvi (Striking range - 250 kms)
India's First Nuclear Centre	Tarapur

First Sound Film	Alam Ara, 1931
First Oscar nomination for Best Foreign Language Film	Mother India in 1957
First National Film Award for Cinema	Shyamchi Aai in 1954

First Colorized Film	Mughal-e-Azam in 2004(the original black-and-white version was released in 1960)
First Sponsored TV Serial	Hum Log, started in 1984, was also the first soap opera of India
First Actor to entact 10 roles	Kamal Haasan

The first President of the USA	George Washington
The first Prime Minister of Great Britain	Walpole
The first President of the Chinese Republic (1912)	Sun Yat-Sen
The first Chairman of the Central Government of the People's Republic of China formally established in Peking in October, 1949	Mao Tse-tung
The first Governor-General of Pakistan	Mohammad Ali Jinnah
The last king of France	Louis Philippe
The first ever woman Prime Minister of a country in the world	Mrs S. Bandaranaike (Sri Lanka)
The first woman to become Prime Minster of a country twice	Mrs S. Bandaranaike
First Visitors, Invaders	
The first European invader on Indian Soil	Alexander the Great
The first European to visit China	Marco Polo
The first Chinese pilgrim who came to India	Fa-hein
The first British Prime Minister to visit India	Harold Macmillan
The first President of the USA to visit India	D. Eisenhower

The first Soviet Prime Minister to visit India

V.I. Bulganin

Chairman of Peoples Republic of China	Mao-Tse-Tung
President of the Chinese Republic	Dr. Sun Yat Sen
President of USA	George Washington
Chinese Traveller to India	Fahein
Foreign Invader to India	Alexander the Great
Person to reach South Pole	Amudsen
Person to reach North Pole	Robert Pearey
Person in Space	Yuri Gagarin
Person on Moon	Neil Armstrong
Lady to Climb Mount Everest	Junko Taipei
European to visit China	Marco Polo
Place where atom bomb was dropped	Hiroshima
Man to walk in Space	Alexei Leonov
Women cosmonaut in Space	Valentina Tereshkova
Woman Prime Minister of a country	Mrs. Srimavo Bhandarnaike
Women President of a country	Maria Estela Peron
First north-south crossing of Australia	Burke, Robert O'Hana (1860-1861)
First sea journey around the world	Magellan

Indian Defence

- The President of India is the supreme commander of the Indian defence system
- The whole administrative control of the Armed forces lies in the Ministry of Defence
- The Defence Minister (Raksha Mantri) is responsible to Parliament for all matters concerning defence of the country.
- Indian defence system has been divided into three services-
 1. Army
 2. Navy
 3. Air Force

Organisation

The Principal task of the Ministry of Defence is to obtain policy directions of the Government on all defence and security related matters and communicate them for implementation to the Service Headquarters, Inter-Service Organisations, Production Establishments and Research and Development Organisations. It is also required to ensure effective implementation of the Government's policy directions and the execution of approved programmes within the allocated resources.

Indian Army

The Indian Army is organised into seven commands:-

S.No	Command	Headquarter
1	Western command	Chandigarh
2	Eastern command	Kolkata
3	Northern command	56 APO
4	Southern command	Pune
5	Central command	Lucknow
6	Army Training Command	Shimla
7	South Western Command	Jaipur

Indian Air Force

Indian Air Force is organised into seven commands:-

S.No.	Command	Headquarter
1	Western command	New Delhi
2	Central command	Allahabad
3	Eastern command	Shillong
4	South western command	Jodhpur
5	Training command	Bangaluru
6	Maintenance command	Nagpur
7	Southern command	Thiruvananthapuram

Indian Navy

Indian Navy is organised into following commands:-

S.No.	Command	Headquarter
1	Eastern command	Vishakhapatnam
2	Southern command	Kochi
3	Western command	Mumbai

Indian Coast Guard

The Coast Guard is headed by a Director General. Its headquarters is based in the Capital, New Delhi. It has

- 3 Regional headquarters at Mumbai, Chennai and Port Blair
- 1 District Headquarters in each of the nine coastal states and 2 in the Union territories of Andaman and Nicobar Islands and Lakshadweep Islands.
- 4 Coast Guard Stations, one each at Vadar, Okha, Tuticorin and Mandapam.
- It also has aerodromes in Daman and Chennai
- Air Enclaves at Goa, Kolkata and Port Blair.

Paramilitary and Reserved Forces

Indo-Tibetan Border Police (ITBP)	• It was established in 1962, after the Chinese attack. • It is basically employed in the Northern borders for monitoring the borders and also to stop smuggling and illegal immigration
National Security Guard (NSG)	• It was established in 1984 • It has been established to counter the surge of militancy in the country. • It is highly trained force which deals with militants effectively
Central Industrial Security Force (CISF)	• It was set up in 1969 after the recommendations of Justice B Mukherji. • Its objective is to monitor the industrial complexes of Central Government
Assam Rifles	• It was established in 1835 and is the oldest paramilitary force in the country • Its main objective is to keep vigilance of international borders in North East and countering insurgency operations in Arunachal Pradesh, Manipur, Mizoram and Nagaland
Border Security Force (BSF)	• It was established in 1965 • It keeps a vigil over the international borders against the intrusion in the country.

Central Reserve Police Force (CRPF)	• It was set up in 1939 • Its main objective is to assist the State/Union Territory Police in maintenance of law and order • The 88th Battalion of CPRF, known as 'Mahila Battalion' (commissioned on March 30, 1986) is the world's first paramilitary force comprising entirely of women.
National Cadet Corps (NCC)	• It was established in 1948 • Its main objective is to stimulate interest among the youth in the defence of the country in order to build up a reserve man power to expand armed forces
Territorial Army (TA)	• It was established in 1948 • It is a voluntary, part time force (between 18 and 35 years), not professional soldiers, but civilians, who wish to assist in defence of the country
Home Guards	• It was established in 1962, to assist the police in maintaining security, to help defence forces and to help local authorities in case of any eventuality.
Coast guard	• It was setup in 1978 • Its main objective is to protect the maritime and other national interests in the maritime zones of India
Intelligence Bureau (IB)	• It was set up in 1920 • Its objective is to collect secret information relating to country's security • It was originally set up as Central Special Branch (CSB) in 1987 and renamed IB in 1920.
Central Bureau of Intelligence (CBI)	• It was established in 1953 • Its objective is to investigate cases of misconduct by public servants, cases of cheating, embezzlement and fraud • CBI is also entrusted with the investigation of international crime cases in collaboration with INTERPOL
National Crime Records Bureau (NCRB)	• It was established in 1986 • Its objective is to collect crime statistics at the national level, information of inter-state and international criminals to help investigation agencies.

Rapid Action Force (RAF)	- It was established in 1992 - Under the operational command of CPRF 10 battalions of the CPRF have been reoriented for tackling communal riots in the country.
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Defence Production Units

Unit	Established	Total Factories	Places
Hindustan Aeronautics Limited (HAL)	1964	12	Bengaluru(5), Koraput, Nasik, Karwa, Kanpur, Lucknow, Barrackpur, Hyderabad
Bharat Electronics Limited (BEL)	1959	9	Bengaluru, Ghaziabad, Pune, Machilipatnam, Taloja (Maharashtra), Panchula (Haryana), Kotadwara, Hyderabad, Chennai.
Bharat Earth Movers Limited (BEML)	1964	3	Bengaluru, Mysore, Kolar Gold Fields
Bharat Dynamics Limited	1970	1	Hyderabad
Mishra Dhadu Nigam Limited (MIDHANI)	1973	1	Hyderabad
Goa Shipyard Limited (GSL)	1957	1	Goa

Military Training Centers

Following are the Military Training Centers in India.

Military Training Centers	Place
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National Defence Academy	Khadakvasla (Pune, Maharashtra)
Indian Military Academy	Dehra Dun (Uttaranchal)
Rashtriya Indian Military College	Dehra Dun (Uttaranchal)
National Defence College	New Delhi
Defence Services Staff College	Wellington
Armed Forces Medical College	Pune (Maharashtra)
Officer's Training School	Chennai (Tamil Nadu)
College of Combat, Mhow (Army War College) Armoured Corps Centre and School	Deolali
College of Military Engineering	Kirkee (Pune) (Maharashtra)
Military College of Telecommunications Engineering	Secunderabad (Andhra Pradesh)
Army Cadet College	Dehra Dun (Uttaranchal)
College of Material Management	Jabalpur (Madhya Pradesh)
High Altitude Warfare School	Gulmarg (J & K)
Army Service Corps School	Bareilly (UP)
EME School	Secunderabad (Andhra Pradesh)
Military College of Electronics and Mechanical Engineering, Remount and veterinary Corps Centre and School	Merrut (UP)
Army Educational Corps Training School and Depot	Pune (Maharashtra)
Corps of Military Police Centre and School	Bengaluru (Karnataka)
Army School of Physical Training	Pune (Maharashtra)
Army/Air Transport Support School	Agra (UP)
Army Clerk Training School	Aurangabad (Maharashtra)

Army School of Mechanical Transport	Bengaluru (Karnataka)
Counter Insurgency and Jungle Warfare School	Vairengte
Institution of Nation Integration	Pune (Maharashtra)

Naval Training Centers

Following are the Naval Training Centers in India.

Naval Training Centers	Place
INS Cilka	Bhubaneswar (Orissa)
INS Circars	Visakhapattanam (AP)
INS Hamla	Malad, Mumbai (Maharashtra)
INS Mandovi	Goa
INS Shivaji	Lonawala (Maharashtra)
INS Valsura	Jamnagar (Gujrat)
INS Venduruthy	Kochi (Kerala)
Naval Academy	Kochi
Navy Shipwright School	Visakhapattanam (AP)
Sailor's Training Establishment	Dabolim (Goa)

Air Force Training Centers

On 15 Aug 1947, the Air Force Training Establishments located in India were:

- Initial Training Wing, Coimbatore formed on 11 Jul 46.

- Elementary Flying Training School, Jodhpur formed on Jul 42.
- Advanced Flying Training School, Ambala formed on Jul 41.
- No.1 Ground Training School, Jalahalli formed on Jul 47.
- No.2 Ground Training School, Tamabaram formed on Feb 47

Currently we have following are the AirForce Training Centers in India.

AirForce Training Centers	Place
Air Force Administrative College	Coimbatore (Tamil Nadu)
Air Force Academy	Hyderabad (Andhra Pradesh)
Air Force Technical College	Jalahalli
Air Force School	Sambre, Belgaum
Flying Instructors' School	Tambaram (Tamil Nadu)
Elementary Flying School	Bidar (Karnataka)
Fighter Training and Transport	Hakimpur and Yelahanka (Karnataka)
Training Wings of the Air Force Institute of Aviation Medicine	Bangluru (Karnataka)
Paratroopers Training School	Agra (Uttar Pradesh)
Navigation and Signal School	Hyderabad (Andhra Pradesh)
College of Air Warfare	Secunderabad (Andhra Pradesh)
Ground Training Institutes	Vadodara (Gujarat) and Barrackpur (West Bengal)

Defence Training Institutions

A large number of training institutions in the Defence Sector work in coordination with one other. The Important one are described in the following paragraphs:-

- **Sainik Sachools:-** Sainik Sachools were established as joint ventures of the Central and State Government. These are under the overall fovernance of Sainik Schools Society. At present there are around 22 Sainik Schools located all over India.

The Objective of Sainik Schools include brining quality public school education within the reach of the common man, all round development of a child's personality and to remove regional imbalance in the Officers' Cadre of the Armed Forces. The Sainik Schools prepare boys academically, physically and mentally to join Armed Forces through the National Defence Academy (NDA).

- **Rashtriya Military School:-** The five Military Schools in the country at Ajmer, Bengluru, Belgaum, Chail and Dholpur are affiliated to CBSE. The Military Schools admits boys in class VI, based on an all-india Entrance Examination. While 67 percents seats are reserved for wards for JCOs/ORs called 'entitled category', out of 33 % non-entitled category seats, 20% are reserved for wards of service officers.
- **Rashtriya Indian Military College:-** The Rashtriya Indian Military College (RIMC), Dehradun was founded on 13 March 1922 with the objective of providing necessary preliminary training to boys of Indian birth or domicile, whishing to become officer in Indian Armed Forces of India. The RIMC is now a premier educational institutions in the country. Selection for RIMC is through a written examination and interview conducted through the state government. The institution now serves as a feeder institute to the National Defence Academy, Khadakvasla (Pune).
- **National Defence Academy:-** The National Defence Academy (NDA), Khadakwasla is a premier Inter Service training institution where future officers of Armed Forces are trained. The training involves an exacting schedule of three years before the cadets join their respective Services Academies, viz., Indian Military Academy, Naval Academy and Air Force Academy.
- **Indian Military Academy:-**The Indian Military Academy (IMA), Dehradun transform yound men into courageous, dynamic and erudite young officers of integrity, who are to bear and brunt of battle, or hardship whilst guarding the nation's frontiers. IMA established in 1932, imparts training to cadets for commission into the Army.
- **Officers Training Academy:-** Established in 1963, the Officers Training School (OTS) was re-designated as Officers Training Academy (OTA) from January 1, 1988 on completion of 25 years of its existence. Its main task before 1965 was to train Gentlemen Cadets for grant of emergency Commission. From 1965 onwards, the Academy has started training cadets for Short Service Commission. With the entry of women officers into the Army since September 21, 1992, around 100 lady officers now get commissioned from OTA every year.
- **Defence Services Staff College:-** Defence Services Staff College (DSSC), Wellington is a premier tri-service training establishment imparting training to middle level officers (Major and equivalent) of the three wings of Indian Armed Forces, friendly foreign countries and Indian Civil Services.
- **College of Defence Management:-** The Institutte of Defence Management(IDM), Secunderabad was established in June 1970 to impart modern, scientific management training to the Armed Forces Officers. The IDM was renamed as College of Defence Management (CDM) in 1980. The college has trained over 5000 officers of the rank of Major to Major General and equivalents of the three Services through its on-campus programmes. It has also given exposure in defence management to large number of officers through external capsules. Officers from Para-Military Forces, Ministry of Defence, research and development organisations and friendly foreign countries also attend various on-campus programmes.

- **College of Military Engineering:-** The college of Military Engineering (CME) at Pune is a premier technical institution. The training is conducted for personnel of the Corps of Engineers, other Arms and Services, Navy, Air Force, Para Military Forces, Police and civilians. Besides, personnel from friendly foreign countries are also trained. CME is affiliated to Jawaharlal Nehru University (JNU) for the award of B.Tech and M.Tech degrees.
- **National Defence College:-** The National Defence College (NDC) inaugurated on 27 April 1960 is the only institution in the country that imparts knowledge on all aspects of national security and strategy. Senior Defence and Civil Services Officer participate in a 47-week comprehensive programme of national security and strategy.

Defence Ordnance Factories

The Ordnance Factories Organisation is the largest and oldest departmentally run production organisation in the country and is primarily engaged in the manufacture of Defence Hardware for the Armed Forces. The Ordnance Factories was established with a mandate to ensure self-reliance in manufacturing of Defence hardware for the Armed Forces. The Ordnance Factories Organization is a fine blend of old and state-of-the-art factories. The first Ordnance Factory was established in 1801 at Cossipore, near Kolkata. There are 39 Ordnance Factories, geographically distributed all over the country at 24 locations. Ordnance Factories, nalanda and Ordnance Factory, Korwa are in project stage.

Defence Research and Development Organisation (DRDO)

Science drives the nation in peace and war. Impact of science in any country is manifold namely social, strategic and financial. The vision of DRDO is to empower India with cutting-edge defence technologies. It has the mission of achieving self-reliance in critical defence technologies and systems by indigenisation and innovation while equipping the armed forces with state-of-the-art weapon systems and equipment.

DRDO came into existence in 1958. It was the amalgamation of Technical Dev Establishment (TDEs) of Indian Army and Directorate of Tech Dev and Production (DTDP) with Defence Science Organisation (DSO).

DRDO is headed by Scientific Advisor to Raksha Mantri (Defence Minister), SA to RM, who is also the secretary, Deptt of Defence R&D and Director General, R&D. The Sa to RM is assisted by 7 Chief Controllers. The organisations has a two tier system, viz., the Technical and Corporate Directorates at DRDO Bhawan, New Delhi; and laboratories/establishments located at different stations all over the country. The following is the organisational structure of DRDO. Dr DS Kothari was the first SA to RM.

- Total No. of Labs/Estts- 52
- Manpower Training Institutes-3
- Integrated Test Range for Performance evaluation-2

The responsibilities of DRDO can be consolidated under the following categories:-

- Design,development & lead to produce state-of-art Sensors, Weapons Systems, Platforms and allied equipment (Strategic systems, Tactical systems, Dual Use technologies)
- Research in Life Sciences, to optimise combat effectiveness and promote well-being of service personnel in harsh environment
- Develop infrastructure and highly trained Manpower for strong defence technology base.
-

Some of the major Contributions of DRDO have been the following:-

S.No.	Systems	System Development/Accepted/Introduced
1	Missile System	Agni, Prithvi, Brahmos, Dhanush, Trishul, Akash & Nag
2	Naval Systems	HUMSA, USHUS, TAL, Torpedoes-fire control system and Advanced Experimental.
3	Electronic Systems	SARARI, ACCCS, Surveillance Radar, SUMUKTA, SANGRAHA, WLR, SV-2000, CIDSS, CNR and Indra
4	Combat Vehicle and Engg.	MBT, Arjun, Armored, Engg recce Vehicle(AERV) Bridge Layer Tank, Armoured Amphibious Dozer, SARVATRA, Trackway Expedient Mat Ground Surfacing, Armoured Ambulance BMP-II, Career Mortar Tracked on BMP-II & Operation Theatre Complex on Wheels
5	Aero Systems	LCA, Lakshya Pilotless Aircraft, Nishant UAV "Tempest" EW Suite, Tranquil Reader Warning Receiver (RWR), Tarang RWR Project Vetrivale, High Accuracy Direction Finding (HADF) RWR, Jagur Mission Compter & Bheema 1000 Aircraft Weapon Loading Trolley
6	Armament Systems	5.56mm INSAS (Amn. LMG & Rifle), Pinaka-Multibarrel Rocket Launcher System, FSAPDS Mk-I/II Ammunition, Influence Mines Mk-I, Multimode Grenade etc.
7	Materials	AB Class Steel for Naval Applicaton, Titanium Sponge, NBC Protective, Clothing/Permeable Suites, Extreme cold weather Clothing systems, Blast Protection Suits, Synthetic Life Jacket, Anti Riot Polycarbonate Shield, Anti Riot Helmet, Brake pads for Aircrafts, Heavy alloy Armour Penetrator Rods, Jackal Armour, Kanchan Armour, Spade M1.
8	Life Sciences Systems	Life Support Systems for Army, Navy and Airforce Personnel, NBC Canister, Water Prison Detection Kit, Portable, Decontamination Apparatus, NBC Filters/ventilation systems, First Aid Kit, CW Type A/B, Decontamination kit/solution.

Geography Facts about India

Following are the Geography Facts about India.

Location

- The Union of India is the seventh largest country in the world covering an area of 32,87,590 square kilometers and it is an important country of south Asia.
- South Asia has a total area of about 4.488 million sq. km out of which India has the largest area (3.287 sq. km). It occupies 73.2 % of total area.
- It is 4 times largest than Pakistan which is second largest in South Asia. India is 12 times largest than UK and 8 times largest than Japan.
- The mainland stretches from latitude 8°4' north to 37°6' north and from longitude 68°7' east to 97°25' east of Greenwich. The latitudinal and longitudinal extent of the country is almost same in degrees i.e. about 30 degrees.
- The southernmost point in Indian Territory, (in Great Nicobar Islands) is the Indira Point (6°45'), while Kanyakumari, also known as Cape Comorin, is the southernmost point of Indian mainland. The country thus lies wholly in the northern and eastern hemispheres.
- The 82°30' E longitude is taken as Standard Time Meridian of India, as it passes through the middle of India (from Naini, near Allahabad.) Hence Naini, Near Allahabad is the Standard Time of India.



- The country is of a vast size and measures about 3,214 kilometers from north to south and about 2,933 kilometers from west to east.
- Indian Standard Time:- GMT +05:30
- Telephone Country Code:- +91
- Coastline:- 7,516.6 km encompassing the mainland, Lakshadweep Islands, and the Andaman & Nicobar Islands.
- India lies midway between the Far East and the Middle East. The trans-Indian Ocean routes connecting the industrially developed countries of Europe in the west and the underdeveloped countries of east Asia pass close by. India being centrally located in South Asia, she enjoys an advantageous-position for doing trade with Australia and the countries of Africa, the Middle East and the Far East. Thus, India dominates the Indian Ocean and commands an important strategic position. Her land frontier is 15,200 kilometers long. Her northern borderland, being mountainous, is very difficult to cross and it offers very few transport facilities for trade with the arid, almost barren and very sparsely populated regions of Central Asia. India has a coastline of 6,100 kilometers in the main land and she depends on the Indian Ocean for bulk of her foreign trade. The total length of the coastline of the mainland, Lakshadweep group of Islands and Andaman and Nicobar group of Islands is 7,519.5 km.

India Facts	
Territorial Sea	12 nm (nautical miles)
Contiguous Zone	24 nm
Exclusive economic Zone	200 nm
Continental Shelf	200 nm or to the edge of the continental margin
Longest River	Ganga
Largest Lake	Lake Chilka
Highest Point	Mt. K ² (8611 m)
Highest Point of Himalaya	Kanchan Junga (8,598 m)
Lowest Point	Kuttanad (-2.2 m)
Northernmost Point	Siachen Glacier near Karakoram
Southernmost Point	Indira Point, Great Nicobar, Andaman & Nicobar Islands
Southernmost Point of India (Mainland)	Cape Comorin (Kanya Kumari)
Westernmost Point	West of Ghuar Mota, Gujarat
Easternmost Point	Kibithu, Arunachal Pradesh
Highest Altitude	Kanchenjunga, Sikkim
Lowest Altitude	Kuttanad (Kerala)

Physical Boundaries :- The sub-continent is isolated in a remarkable way from the rest of Asia, making it a geographical unit. For example, barring the plateau of Baluchistan the two great ranges, namely, the Sulaiman and the Kirthar, cut it off from the west. Along the North the great mountains wall formed by the Hindu Kush, Karakoram and the Himalayas, cut it off the countries that lie beyond as the mountains are very high and difficult to cross. Similarly, the Southward offshoots of the Eastern Himalayas separate it from Burma.

The latitudinal and longitudinal extent of the country is almost the same in degrees i.e. about 30 degrees. But in kilometers, the north-south distance (about 3,200 km) is more than that of the east-west.

The Himalayas and other lofty mountains- Muztagh Ata, Aghil Kunlun Mountains to the north of Kashmir and south eastern portion of Zaskar mountains to east of Himachal Pradesh - form India's northern boundary, except in the Nepal region. She is adjoined in the north by China, Nepal and Bhutan. A series of mountain ranges in the east separate India from Burma. Also, in the east, lies Bangladesh bounded by Indian States of West Bengal, Assam, Meghalaya, Tripura and Mizoram. In the north-west, Afghanistan and Pakistan border on India. The Gulf of Mannar and the Palk Strait separate India from Srilanka.

Locational Advantage:- India is a unique country as it is easily accessible to other parts of Asia, Africa, Europe and Americas. Its cultural influences have crossed its border from time immemorial and reached far off lands. It acts as a bridge head between developed and developing countries of the world and between the East and the West. India's strength lies in its geography as much as in its culture. Since the opening of the Suez Canal in 1869, distance between India and Europe has been reduced by 7000 kms. India enjoys a favourable ocean routes from East and South-East Asia and Australia to Africa and Europe pass through Indian Ocean. India is connected with the Cape of Good Hope and the Suez Canal. India can also reach Canada and the USA through the Strait of Malacca after crossing the Pacific Ocean.

India Geological Era

India has its own geological eras and periods. The standard geological eras are

1. The Pre-Cambrian (over 570 million years old)
2. The Paleozoic (245-570 million years old)
3. The Mesozoic (66-245 million years old)
4. The Cenozoic (66 million years old to the present)

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The Indian Geological eras are

1. The Archean or Early Pre-Cambrian
2. The Purana or Late Pre Cambrian
3. The Dravidian (400-570 million years old)
4. The Aryan (400 million years old to the present)

The Pre Cambrian derives its names from Wales in the United Kingdom. The periods got their names from places where rock formations of that period were formed. The Pre-Cambrians do not contain fossils of plants and animals. The Paleozoic have the fossils of very early lives, the Mesozoic have middle lives and the Cenozoic recent lives.

Major Geological Formations of India					
Indian Era	Standard Geological Eras and Periods	Duration of Period (in million years)	Age from beginning (in million years)	Major Formation in Peninsula	Major Formations in Extra Peninsula
Aryan	Cenozoic Quaternary (Recent Pleistocene) Tertiary (Pliocene Miocene) Eocene Mesozoic Cretaceous Jurassic Triassic	Less than 2	2 or 3	Newer Alluvial deserts, laterites	Formation of Ganga Plains
Dravidian	Paleozoic Permian Carboniferous Devonian Silurian Ordovician	64	-	Tertiary Coastal Deposits	Formation of Himalayas
Purana	Pre-Cambrian Late Pre-Cambrian	-	570	Vindhayan Cuddapph Dharwar Aravalli Archean systems	Archean Gneiss

India Area and Boundaries

Following are the India Area and Boundaries details :-

- India stretches 3,214 km from N to S & 2933 km from E to W.
- Area:- 32,87,263 sq. km. Accounts for 2.4 % of total world area and 16 % of the population
- Mainland India has a coastline of 6,100 km. Including the Lakshadweep and Andaman and Nicobar, the coastline measures about 7516. km
- In India, total land mass is

1. Plains : - 43.3 %
 2. Plateaus :- 27.7 %
 3. Hills :- 18.6 %
 4. Mountains:- 10.7 %
- In the south, on the eastern side, the Gulf of Mannar & the Palk Strait separate India from Sri Lanka
 - Total land neighbours of India are 7 . These are
 1. Pakistan
 2. Afghanistan
 3. China
 4. Nepal
 5. Sri Lanka
 6. Bhutan
 7. Bangladesh and
 8. Myanmar
 - India's Islands include the Andaman & Nicobar Islands in Bay of Bengal & Lakshadweep, Minocoy & Amindive Islands in the Arabian Sea

Bordering Pakistan	Jammu and Kashmir, Punjab, Rajasthan and Gujrat
Bordering China	Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh
Bordering Nepal	Bihar, Uttarakhand, Uttar Pradesh, Sikkim and West Bengal
Bordering Bangladesh	West Bengal, Mizoram, Meghalaya, Tripura and Asom
Bordering Bhutan	West Bengal, Sikkim, Arunachal Pradesh and Asom
Bordering Myanmar	Arunachal Pradesh, Nagaland, Manipur and Mizoram
Bordering Afghanistan	Jammu and Kashmir (Pakistan-Occupied Area).

Facts about Position of States of India

- Uttar Pradesh border maximum number of states:- 8 (Uttarakhand, Himachal Pradesh, Haryana, Rajasthan, MP, Chhattisgarh, Jharkhand and Bihar)
- Tropic of Cancer passes through 8 (Eight) states:- Gujara, Rajasthan, MP, Chhattisgarh, Jharkhand, West Bengal, Tripura and Mizoram.
- India standard Meridian (82°30' E meridian) passes through UP, MP, Chhattisgarh, Orissa and Andhra Pradesh.

Important Rivers of India

Following are the important rivers of India

Name	Origin From	Fall into	Length (km)
Ganges	Combined Sources	Bay of Bengal	2525
Satluj	Mansarovar Rakas Lakes	Chenab	1050
Indus	Near Mansarovar Lake	Arabian Sea	2880
Ravi	Kullu Hills near Rohtang Pass	Chenab	720
Beas	Near Rohtang Pass	Satluj	470
Jhelum	Verinag in Kashmir	Chenab	725
Yamuna	Yamunotri	Ganga	1375
Chambal	M.P.	Yamuna	1050
Ghagra	Matsatung Glacier	Ganga	1080
Kosi	Near Gosain Dham Park	Ganga	730
Betwa	Vindhyanchal	Yamuna	480
Son	Amarkantak	Ganga	780
Brahmaputra	Near Mansarovar Lake	Bay of Bengal	2900
Narmada	Amarkantak	Gulf of Khambat	1057
Tapti	Betul Distt. Of MP	Gulf of Khambat	724
Mahanadi	Raipur Distt. In Chattisgarh	Bay of Bengal	858
Luni	Aravallis	Rann of kuchchh	450
Ghaggar	Himalayas	Near Fatehabad	494

Sabarmati	Aravallis	Gulf of Khambat	416
Krishna	Western ghats	Bay of Bengal	1327
Godavari	Nasik distt. In Maharashtra	Bay of Bengal	1465
Cauvery	Brahmagir Range of Western Ghats	Bay of Bengal	805
Tungabhadra	Western Ghats	Krishna River	640

Important National Highways

http://en.wikipedia.org/wiki/List_of_National_Highways_in_India_by_highway_number

National Highway	Route	Distance
NH-1	Jalandhar – Uri	663
NH-1A	New Delhi-Ambala-Jalandhar-Amritsar	456
NH-2	Delhi-Mathura-Agra-Kanpur-Allahabad-Varanasi-Kolkata	1465
NH-3	Agra-Gwalior-Nasik-Mumbai	1161
NH-4	Thane and Chennai via Pune and Belgaun	1235
NH-5	Kolkata - Chennai	1533
NH-6	Kolkata – Dhule	1949
NH-7	Varanasi – Kanyakumari	2369
NH-8	Delhi-Mumbai-(via Jaipur, Baroda and Ahmedabad)	1428
NH-9	Mumbai-Vijaywada	841
NH-10	Delhi-Fazilka	403

NH-11	Agra- Bikaner	582
NH-12	Jabalpur-Jaipur	890
NH-13	Sholapur-Mangalore	691
NH-15	Pathankot-Samakhiali	1526
NH-17	Panvel-Edapally	1269
NH-22	Ambala-Shipkitr	459
NH-28	Lucknow-Barauni	570
NH-31	Barhi-Guwahati	1125
NH-37	Panchratna (near Goalpara) – Saiknoaghat	680
NH-44	Shillong-Sabroom	630
NH-49	Cochin-Dhanshkodi	440
NH-52	Baihata-Junction NH-47 (near Saikhoaghat)	850
NH-58	Delhi-Mana	538
NH-65	Ambala-Pali	690
NH-75	Gwalior-Ranchi	955
NH-76	Pindwara-Allahabad	1007
NH-78	Katni-Gumla	559
NH-86	Kanpur-Dewas	674
NH-91	Ghaziabad-Kanpur	405

NH-150	Aizawl-Kohima	700
NH-200	Raipur-Chandikhal	740
NH-205	Ananthapur-Chennai	442
NH-209	Dindigul-Bengaluru	456
NH-211	Solapur-Dhule	400
NH-217	Raipur-Gopalpur	508
NH-220	Kollam (Quilon)-Teui	265

National Parks in India and Wild Life Sanctuaries

Following are the National Parks in India with their location

Gir Forests	Home of Asiatic Lion, In Gujrat
Kaziranga Sanctuary	One horned rhino, in Asom,
Manas Sanctuary	One horned rhino, in Asom,
Chandraprabha Sanctuary	Home of Asiatic Lion, in UP
Ghana or Keoladeo Bird Sanctuary	In Bharatpur, Home of tiger
Dachigam Sanctuary	For Hangul, In Kashmir
Corbett National Park	In Uttarakhand, Home of tiger
Kanha National Park	In MP
Shiv Puri National Park	In MP
Hazaribagh National Park	In Jharkhand

Pariyar Game Sanctuary	In Kerala
Dudhwa National Park	In UP
Vedanthangal Bird Sanctuary	In TN
Nokrek National Park	In Meghalaya
Sariska Sanctuary	In Rajasthan
Ranthambhor National Park	In Rajasthan
Namdapha National Park	In Arunachal Pradesh
Kelbut Lmjo Floating National Park	In Manipur
Palamau tiger project	In Bihar
Simlipal National Park	In Orrisa
Ranganthitoo Bird Sanctuary	In Mysur, Karnataka
Nagarhore National Park	In Karnataka
Mudumalai Sanctuary	In TN.
Balpakaram Sanctuary	In Meghalaya
Bandipur Sanctuary	Along the Karnataka- Tamil Nadu Border
Jaldapara Sanctuary	In West Bengal. For rthinos
Wild Ass Sanctuary	In Rann of Kutch, Gujarat, for wild ass.

Major Ports in India

Following are the major Ports in India.

Western Coast	Eastern Coast
Kandla (child of partition)	Kolkata-Haldia (riverine port)
Mumbai (busiest and biggest)	Paradip (exports raw iron to Japan)
Jawahar Lal Nehru (fastest growing)	Vishakhapatnam (deepest port)
Marmugao (naval base also)	Chennai (oldest and artificial)
Mangalore (exports Kudremukh iron-ore)	Ennore (most modern-in private hands)
Cochin (natural Harbour)	Tuticorin (southernmost)

Few Facts about some port:- Among major ports, Mumbai is the biggest. Kandla is a tidal port. Marmugao enjoys the second position by value of the tonnage of the bulk of which is export of Iron ore. Vishakhapatnam is the deepest land-locked and protected port. Chennai has an artificial harbour, Kolkata is a riverine port, Haldia has a fully equipped containerised berth.

Shipping:- Overseas shipping has an extremely important role to play in India's international trade. The country has the largest merchant shipping fleet among developing countries and ranks 17th in the world in shipping tonnage. There were 102 shipping companies in country operating as on 31 March 2000, includes shipping corporation of India, a public sector undertaking.

Important River Valley Projects in India

Following are the important river valley projects in India

Bhakra Nangal Project	On Sutlej in Punjab. Highest in India.Ht. 226m. Reservoir is called Gobind Sagar Lake.
Mandi Project	On Beas in HP
Chambal Valley Project	On Chambal in MP & Rajasthan, 3 dams are there:- Gandhi Sagar Dam, Rana Pratap Sagar Dam and Jawahar Sagar Dam
Damodar Valley Project	On Damodar in Bihar, Based on Tennessee Valley Project USA
Hirakud Project	On Mahanadi in Orissa, World's Longest Dam: 4801m
Rihand Project	On Son in Mirzapur, Reservoir is called Gobind Vallabh Pant reservoir.
Kosi Project	On Kosi in N.Bihar

Mayurkashi Project	On Mayurkashi in West Bengal
Kakrapara Project	On Tapi in Gujrat
Nizamsagar Project	On Manjra in Andhra Pradesh
Nagarjuna Sagar Project	On Krishna in Andhra Pradesh
Tugabhadra Project	On Tugabhadra in Andhra Pradesh & Karnataka
Shivasamudram Project	On Cauvery in Karnataka. It is the older river valley project in India.
Tata Hydel Scheme	On Bhima in Maharashtra
Sharavathi Hydel Project	On Jog Falls in Karnataka
Kundah & Periyar Project	In Tamil Nadu
Farakka Project	On Ganga in WB. Apart from power and irrigation it helps to remove silt for easy navigation.
Ukai Project	On Tapti in Gujarat
Mahi Project	On Mahi in Gujarat
Salal Project	On Chenab in J&K
Mata Tila Multipurpose Project	On Betwa in Uttar Pradesh and Madhya Pradesh
Thein Project	On Ravi, Punjab.
Pong Dam	On Beas, Punjab
Tehri Dam	On Bhagirathi, Uttarakhand

Sardar Sarovar Project	On Narmada, Gujarat/MP.
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Indian Towns On Rivers

Town	River
Allahabad	At the confluence of the Ganga and Yamuna
Patna	Ganga
Varansi	Ganga
Kanpur	Ganga
Haridwar	Ganga
Badrinath	Alaknanda
Agra	Yamuna
Delhi	Yamuna
Mathura	Yamuna
Ferozpur	Satluj
Ludhiana	Satluj
Srinagar	Jhelum
Lucknow	Gomti
Jaunpur	Gomti

Ayodhya	Saryu
Bareilly	Ram ganga
Ahmedabad	Sabarmati
Kota	Chambal
Jabalpur	Narmada
Panji	Mandavi
Ujjain	Kashipra
Surat	Tapti
Jamshedpur	Swarnarekha
Dibrugarh	Brahmaputra
Guwahati	Brahmaputra
Kolkata	Hooghly
Sambalpur	Mahanadi
Cuttack	Mahanadi
Serirangapatnam	Cauvery
Hyderabad	Musi
Nasik	Godavari
Vijayawada	Krishna

Curnool	Tungabhadra
Tiruchirapalli	Cauvery

Nick Name of Indian Places

Nick Name	Place
Golden City	Amritsar
Manchester of India	Ahmedabad
City of seven islands	Mumbai
Sorrow of Bengal	Damoda river
Sorrow of Bihar	Kosi River
Blue Mountains	Nilgiri
Queen of Arabian Sear	Kochi
Space City	Bengaluru
Garden City of India	Bengaluru
Silicon valley of India	Bengaluru
Electronic City of India	Bengaluru
Pink City	Jaipur
Gateway of India	Mumbai
Twin City	Hyderabad-Sikandarabad
City of festivals	Mudurai
Deccan Queen	Pune
City of Buildings	Kolkata

Dakshin Ganga	Godavari
Old Ganga	Godavari
Egg bowls of Asia	Andhra Pradesh
Soya region	Madhya Pradesh
Manchester of the South	Coimbatore
City of Nawabs	Lucknow
Venice of the east	Kochi
Queen of the Mountains	Mussoorie (Uttarkhand)
Sacred river	Ganga
Hollywood of India	Mumbai
City of Castles	Kolkata
State of five rivers	Punjab
City of weavers	Panipat
City of lakes	Srinagar
Steel city of India	Jamshedpur (called Tatanagar)
City of Temples	Varanasi
Manchester of the north	Kanpur
City of Rallies	New Delhi
Heaven of India	Jammu & Kashmir
Boston of India	Ahmedabad
Garden of spices of India	Kerala
Switzerland of India	Kashmir

Abode of the God	Prayag (Allahabad)
Pittsburg of India	Jamshedpur

Climate of India

India has 'Tropical Monsoon' type of climate. The word monsoon has been derived from the Arabic word 'Mausim' which means seasonal reversal of the winds during the course of the year.

Climate of India
1. The whole of India has a tropical monsoonal climate, since the greater part of the country lies within the tropics, and the climate is influenced by the monsoons. 2. The position of the mountain ranges and direction of the rain-bearing winds are the two main factors that determine the climate of India 3. Alternating seasons is the chief characteristic of India's Climate.

Factors Affecting the Climate of India:

1. Latitude: India lies between 8° N and 37° N latitudes. The Tropic of Cancer passes through the middle of India, thus making the southern half of India in the Torrid Zone and the northern half in the Temperature Zone.
2. Himalaya Mountains: The Himalayas play an important role in lending a sub-tropical touch to the climate of India. The lofty Himalaya Mountains form a barrier which effects the climate of India. It prevents the cold winds of north Asia from blowing into India, thus protecting it from severely cold winters. It also traps the Monsoon winds, forcing them to shed their moisture within the sub-continent.
3. Altitude: Temperature decreases with height. Places in the mountains are cooler than places on the plains.
4. Distance from the sea: With a long coastline, large coastal areas have an equable climate. Areas in the interior of India are far away from the moderating influence of the sea. Such areas have extremes of climate.
5. Geographical Limits:
 - i. Western Disturbances: The low pressure systems that originate over the eastern Mediterranean region in winter and move eastwards towards India passing over Iran, Afghanistan and Pakistan are responsible for the winter rain in northern India.
 - ii. Conditions in the Regions Surrounding India: Temperature and pressure conditions in East Africa, Iran, Central Asia and Tibet determine the strength of the monsoons and the occasional dry spells. For example, high temperatures in East Africa may draw the monsoon winds from the Indian Ocean into that region thus, causing a dry spell.

- iii. Conditions over the Ocean: The weather conditions over the Indian ocean and the China Sea may be responsible for typhoons which often affect the east coast of India.
- iv. Jet Streams: Air currents in the upper layers of the atmosphere known as jet streams could determine the arrival of the monsoons and departure of the monsoons. The Scientists are studying the jet streams and how it may affect the climate of India but much remains to be learned about this phenomena.

Climatic Regions of India

Following are the climatic regions of India.

1. **Tropical Rain Forest:**

- i. This type of climate is found on the west coastal plain and Sahyadris and in parts of Assam
- ii. The temperatures are high, not falling below 18.2 degree c even during winter and rising to 29 degree C in April and May, the hottest months.
- iii. Dense, forests and plantation agriculture with crops like tea, coffee and spices are the characteristics vegetation in the area.

2. **Tropical savanna:**

- i. Most of the peninsula, except the semiarid zone in the leese of the Sahyadris experiences this type of climate.
- ii. A long dry weather lasting through winter and early summer and high temperature remaining above 18.2 degree C even during the winter seasons and rising as high as 32 degree C in summer are the chief characteristics of this climate.
- iii. Nagpur has a mean temperature of 35.4 degree C for May which is the hottest month and 20.7 degree C for December the coldest month in the year.
- iv. The natural vegetation all over the area is savanna.

3. **Tropical Semi-Arid Steppe Climate:**

- i. The rain-shadow belt, running southward from central Maharashtra to Tamil Nadu, in the leese of the Sahyadris and Cardamom Hills come under this type of climate of low and uncertain rainfall.
- ii. Temperature varying from 20 degree C to 23.8 degree C for December and 32.8 degree C for May. Agriculturally, the climate is suitable only for dry farming and livestock rearing.

4. **Tropical and Sub-Tropical Steppe:**

- i. This type of climate occurs over a broad crescent from Punjab to Kachchh between the Thar Desert to its west and the more humid climates of the Ganga Plain and the Peninsula to its east and south respectively.
- ii. The climate, therefore, is transitional between these two areas. The annual rainfall is not only low but it is also highly erratic.

5. **Tropical Desert :**

- i. The western part of Barmer, Jaisalmer and Bikaner districts of Rajasthan and most of the part of Kachchh form the sandy wastes of the Thar which experiences a typical desert climate.

- ii. Ganganagar has recorded a maximum temperature of 50 degree C, the highest record.
- 6. **Humid Sub-Tropical With Winter:**
 - i. A large area to the south of the Himalayas, east of the tropical and sub-tropical steppe and north of the tropical savanna running in a long belt from Punjab to Assam with a south-westward extension into Rajasthan east of the Aravalli Range, has this type of climate.
 - ii. Winters are dry except for a little rain received from the westerly depressions.
- 7. **Mountain Climate:**
 - i. The Himalayan and Karakoram ranges experience this type of climate with sharp contrasts between the temperatures of the sunny and shady slopes, high diurnal range of temperatures and high variability of rainfall.
 - ii. The trans-Himalayan region, Ladakh, where the south-west monsoon fails to reach, has a dry and cold climate and a sparse and stunted vegetation.
- 8. **Drought in India:**
 - i. The dry areas of Rajasthan and the adjoining part of Haryana and Gujarat are liable to frequent drought conditions.
 - ii. Another area liable to frequent drought lies on the leeward side of the western Ghats.

Seasons in India

Traditional Seasons		
Seasons	Indian Calendar	Gregorian Calendar
Vasanta	Chaitra-Vaisakha	March-April
Grishma	Jyaishta-Asadha	May-June
Varsha	Shravana-Bhadra	July-August
Sharada	Asvina-Kartika	September-October
Hemanta	Margashirsa-Pausa	November-December
Shishira	Magha-Phalguna	January-February

Season based on Monsoon: The climate of India may be described as tropical monsoon. Even northern India, lying beyond the tropical zone, acquires a tropical touch marked by the relatively high temperatures. The large size of the country and its varied relief play a crucial role in determining the climatic variations in different parts of India. But the seasonal rhythm of the monsoon is apparent throughout India. It may conveniently form the basis for dividing the year into different seasons. The most characteristic feature of the monsoon is the complete reversal of winds. It eventually leads to the alternation of seasons. India is known as the "*land of the endless growing season*". The year is divided into four seasons:

1. **The Cold Weather Season:** (N.E. Monsoons) The cold weather season starts in January. The north-east monsoon is fully established over India this season. The mean January day temperature in Chennai and Calicut is about 24-25 degree C while in the northern plains it is about 10-15 degree C. In December, the sun shines directly over the Tropic of Capricorn. The

landmass of Asia, including the sub-continent, cools down very rapidly. There is a high pressure over the continent. The Indian Ocean, being warmer, has a relatively low pressure.

Three Reasons For Excessive Colds in North India

1. States like Punjab, Haryana and Rajasthan being far away from the moderating influence of sea experience continental climate.
2. The snowfall in the nearly Himalayan ranges create cold wave situation.
3. Around February, the cold winds coming from Caspian Sea and Turkmenistan bring cold wave along with frost and fog over N. Western part of India.

N.E.Trade Winds (prevailing winds in the tropical Latitudes), blow, land to sea. These winds, being off shore do not give rain. In this season western disturbances bring light rainfall, most beneficial to the rabi crop in N.W. India. This rainfall decreases towards the east and the south. The Peninsular region of India, however does not have any well-defined cold weather season. There is hardly any seasonal change in the distribution pattern of the temperature in coastal areas because of moderating influence of sea and the proximity to equator.

2. The Hot Weather Season: From mid March to May the sun moves over the Equator towards tropic of Cancer. By June 21, it is directly overhead the Tropic of Cancer. In March, the highest day temperatures of about 38 degree C occur in the Deccan Plateau. Therefore,
 - a. Peninsular India, places south of Satpuras experience temperature between 26-32 degree C.
 - b. Central India, comprising of Delhi and Madhya Pradesh experience temperature between 40-45 degree C.
 - c. North-West India, comprising mainly of Rajasthan has very high temperature (45 degree C), due also to features like sandy soil, direct insulation and lack of cloud cover.

Storms During the Hot Weather Season

- d. Mango Showers (since the rain showers are good for the mango trees) occurs along the coast of Kerala.
- e. Norwester/Kalbaisakhi (Dark Clouds in the month of Baisakh) occurs in Assam and West Bengal. These are thunderstorms, accompanied with strong winds are heavy rainfall. This is good for the tea crop in Assam and the jute and rice in West Bengal. In Assam these storms are called Bardoli chherha.
- f. Loo is the name given to the hot, dry winds that blow in the Northern Plains. It is very common in Punjab, Haryana, Western Uttar Pradesh (called "aandhi") and Bihar.
- g. Blossom Shower with this shower, coffee flowers blossom in Karnataka and its nearby areas.

The South-West Monsoon Season: This season begins in June and lasts until September. The low pressure which existed over Northern Plain is further intensified. It is strong enough to attract the moisture bearing winds from the Indian Ocean.

Facts about S.W. Monsoon

0. The bulk of rainfall is received during this season in almost every part of India except Tamil Nadu.
1. The amount of rainfall received depends on the relief of the region.
2. The rain is unreliable and there are dry intervals.

1. Trade Winds from the Southern Hemisphere are drawn into India as the S.W. Monsoon Winds after they cross the Equator. Due to the triangular shape of India, the S.W. Monsoon Winds are divided into branches - the Arabian Sea Branch and the Bay of Bengal Branch.

The Arabian Sea Branch: It gives very heavy rainfall, more than 200 cm, to the windward side of Western Ghats. The Deccan Plateau, which lies on the leeward side of the Western Ghats, receives less than 150 cm of rainfall. Further east, rainfall decreases for eg, Hyderabad gets less than 100 cm while Chennai gets even less than 40 cm of rainfall. It does not give much rain to Rajasthan because of Aravali Ranges lie parallel to the direction of winds and hence condensation does not occur. Therefore, Rajasthan gets less than 25 cm rainfall. These winds advance northwards, attracted to the low pressure in India. Punjab at the foothill of the Shiwalik, get Relief Rainfall.

Bay of Bengal Branch: The Bay of Bengal Branch which also blows from the southwest direction, is deflected by the Arakan Mountains of Myanmar and the N.E. Hills of India (Garo, Khasi and Jaintia) towards genetic plain. The delta of Ganga-Brahmaputra and the wind-ward side of the N.E. Hills of India get heavy rain. For example, Cherrapunji on the windward side gets 2500 cm of rainfall, while Shillong on the leeward slope gets about 250 cm. The rainfall decreases as the winds reach the eastern Himalayas and blow westward into the Ganga Plain, attracted by the low pressure in Punjab and Rajasthan.

2. The Retreating of S.W. Monsoon Season: This season lasts through October to December. The temperature in the Northern Plains begins to decrease as the Sun's rays no longer fall directly at the Tropic of Cancer. In September, the Sun shine directly at the Equator. The low pressure over the Northern Plain is not longer strong enough to attract the Monsoon Winds into the heart of India. By the end of September, the Monsoon winds are drawn only upto Punjab, by mid-October upto the Central India and by the early November upto Southern India. Thus, the S.W. Monsoon winds seem to withdraw in stages during this season. That is why this season is known as Retreating S.W. Monsoon season.

This season is marked by cyclones in the Bay of Bengal. They hit the east coast of India and Bangladesh causing widespread damage to life, property and crops.

Difference between the Retreating S.W. Monsoon and North East Monsoon

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. They blow during the months of October to December 2. This is a season of transition between the hot, rainy season and the cold, dry season 3. Characterised by oppressive heat and humidity known as "October Heat" 4. They blow in the S.W. direction but are not strong enough to blow right into the Northern Plain. 5. The withdrawal in stages which results in decreasing rain | <ol style="list-style-type: none"> 1. They blow during the months of January to mid March. 2. This is the cold weather season 3. This is a very pleasant season with low temperatures, low humidity, clear skies. 4. These winds blow in N.E direction from the land to the sea. 5. They do not give rain. |
|---|---|

Distribution of Rainfall in India

Rainfall is the important element of Indian economy. Although the monsoons affect most part of India, the amount of rainfall varies from heavy to scanty on different parts. There is great regional and temporal variation in the distribution of rainfall. Over 80% of the annual rainfall is received in the four rainy months of June to September. The average annual rainfall is about 125 cm, but it has great spatial variations.

- Areas of Heavy Rainfall (Over 200cm) : The highest rainfall occurs in west coasts, on the western Ghats as well as the Sub-Himalayan areas in North East and Meghalaya Hills. Assam, West Bengal, West Coast and Southern slopes of eastern Himalayas.
- Areas of Moderately Heavy Rainfall (100-200 cm) : This rainfall occurs in Southern Parts of Gujarat, East Tamil Nadu, North-eastern Peninsular, Western Ghats, eastern Maharashtra, Madhya Pradesh, Orissa, the middle Ganga valley.
- Areas of Less Rainfall (50-100 cm) : Upper Ganga valley, eastern Rajasthan, Punjab, Southern Plateau of Karnataka, Andhra Pradesh and Tamil Nadu.
- Areas of Scanty Rainfall (Less than 50 cm) : Northern part of Kashmir, Western Rajasthan, Punjab and Deccan Plateau. The two significant features of India's rainfall is that

- i. in the north India, rainfall decreases westwards and
- ii. in Peninsular India, except Tamil Nadu, it decreases eastward.

Facts About Indian Monsoon

- Rainfall occurs in summer
- Rainfall is erratic and unpredictable
- Rainfall is unevenly distributed
- Rainfall affects Indian economy

SPATIO TEMPORAL VARIATION IN THE RAINFALL

1. Though the jet streams go a long way in explaining the origin of monsoon some questions remain unanswered. The great variation in the amount of rainfall both spatially and temporally, the high degree of uncertainty related to the date of arrival etc. are unexplained. Meteorologists have been trying to explain these phenomena from different angles relating to wide variety of generalisation. They have been monitoring huge high pressure or anticyclone zones that form a few kilometers below the jet streams. This ridge hovers over south Goa. It has been noticed that if the ridge moves towards karwar in Karnataka it does not augur well for the monsoon. This high-pressure zone, it is reasoned, blocks the low flowing south westerly monsoon from intensifying over the west coast. When it is not positioned well, several meteorologists remain skeptical about the monsoon's performance.
2. The unusual cooling of surface temperatures over the Arabian Sea by as much as 3 to 4 degrees before the onset of monsoon is another curious phenomenon. This is due to the cool Somali current. It pushes the cool waters of the Indian Ocean towards the Arabian Sea and the drop in temperature seen to have an impact on the progress of the rains.
3. Just before the monsoon sets over south-east Asia the atmosphere pressure over the Indian Ocean drops. Simultaneously about 10,000 kilometers away in the South Pacific there is rise in pressure, when the rain is over, this reverses. This phenomena called southern oscillations is key indicator of the south-west monsoon. When the pressure over Indian Ocean is lower than normal it augurs well for the good monsoon.

Global Atmospheric Research Programme and Monex

The World Meteorological Organisation (WMO) and the International council of Scientific Union (ICSU) organized a Global Atmospheric Research Programme (GARP) in 1969. Under the aegis of this programme, a Global Weather Experiment was conducted for one full year beginning on 1 December 1978. it was one of the biggest ever international experiments, on a global scale, for observing the earth's atmosphere from land and ocean based data collection platforms, and by weather satellites, which now monitor the restless atmosphere, was launched after several years of intensive preparations and planning. Some idea of the dimensions of the experiment may be gleaned from the fact that in May of 1979 as many as fifty two research ships were deployed over the tropical oceans between 10°N and 10°S, While 104 aircraft missions were successfully completed over different parts of the Pacific, the Atlantic and the Indian Ocean. Of considerable interest to India was a special programme of the Global Weather Experiment. This was the Monsoon Experiment (MONEX). Its purpose was to study the influence of monsoon winds on the general circulation of the atmosphere. In view of its economic impact, the Indian scientists were naturally interested in improving their capacity to predict the vagaries of this seasonal phenomenon, which occurs year after over the landmasses of Asia and parts of Africa.

In view of its seasonal characteristics, the monsoon experiment (MONEX) was designed to have three components:-

1. Winter MONEX from 1 December 1978 to 5 March 1979 to cover the eastern Indian Ocean and the Pacific along with the land areas adjoining Malaysia and Indonesia.

2. Summer MONEX from 1 May to 31 August 1979 which covered the eastern coast of Africa, the Arabian Sea and the Bay of Bengal together with the adjacent landmass. It also covered the Indian Ocean in the belt extending from 10°N to 10°S.
3. A West African Monsoon Experiment (WAMEX) over western and central parts of Africa from 1 May to 31 August 1979

International MONEX Management Centers (IMMC) were set up in Kuala Lumpur and in New Delhi to supervise the winter and summer components of the experiment. A large number of scientists from different countries came and worked at these Centers to plan and implement this international project.

Environmental Hazards and Disasters

Change is the law of nature. It is continuous process that goes on uninterruptedly involving phenomena, big and small, material and non-material and make over physical and socio-cultural environment. It is a process present everywhere with variations in terms of magnitude, intensity and scale. Change can be gradual or slow process like the evolution of land forms and organism and it can be as sudden and swift as volcanic eruptions, tsunamis, earthquakes and lightening etc. Similarly, it may remain confined to a smaller area occurring within a few seconds like hailstorms, tornadoes and dust storm, and it can also have global dimensions such as global warming and depletion of the ozone layer. Besides, these changes have different meaning for different people. It depends upon the perspective one takes while trying to understand them. From the perspective of nature, changes are value-neutral. But from the human perspective, these are value-loaded. There are some changes that are desirable and good like the changes of season, ripening of fruits, while there are others like earthquake, floods and wars that are considered bad and undesirable.

Classification of Natural Disasters

Broadly natural disasters can be classified under the following four categories:

Atmospheric	Terrestrial	Aquatic	Biological
• Blizzards • Thunderstorms • Lightening • Tornadoes • Tropical cyclone • Drought • Hailstorm • Frost, Heat, wave	• Earthquakes • Volcanic eruptions • Landslides • Avalanches • Subsidence • Soil Erosion	• Floods • Tidal Waves Ocean • Stormsurge • Tsunami	• Insect Infection • Viral diseases like bird flu, dengue, AIDS etc

- Cold Wave

Dances in India

Dance in India has an unbroken tradition of over 2,000 years. Its themes are derived from mythology, legends and classical literature, two main divisions being classical and folk. Classical dance forms are based on ancient dance discipline and have rigid rules of presentation. Important among them are Bharat Natyam, Kathakali, Kathak, Manipuri, Kuchipudi and Odissi.

Bharata Natyam

This dance derives its roots from Tamil Nadu and has developed into all over in India.

Kathakali

It's a dance from Kerala

Kathak:

It is a classical dance from revitalised as a result of the fusion of Mughal influence with Indian culture

Manipuri

This dance has contributed to delicate, lyrical style of dance called Manipuri.

Kuchipudi

It is a dance having origin from Andhra Pradesh

Odissi

This dance is from Orrisa, once practised as a temple dance, is today widely exhibited by artistes across the country

Folk and tribal dances are of numerous patterns: Both classical and folk dances owe their present popularity to institutions like Sangeet Natak Akademi and other training institutes and cultural organisations. The Akademi gives financial assistance to cultural institutions and awards fellowships to scholars, performers and teachers to promote advanced study and training in different forms of dance and music especially those which are rare-

Various Tribal Dances In India

Following are the various tribal dances in India from different states

Dance	State
Ankia Nat	Assam
Bahaka wata	Orrisa
Bhangra	Punjab
Bhavai	Gujarat, Rajasthan
Bihu	Asom
Chakiarkoothu	Kerala
Chakri	Jammu & Kashmir
Chamar Ginad	Rajasthan
Chappeli	Uttar Pradesh
Chhau	West Bengal
Chavittu natkam	Kerala
Chiraw (Bamboo dance)	Mizoram
Dahikala	Maharashtra
Dandanate	Orrisa
Damdiya ras	Gujarat
Gangore	Rajasthan
Garba	Gujarat
Gidda	Punjab
Gidda parhaun	Himachal Pradesh
Hikat	Jammu & Kashmir
Jat- Jatin	Bihar
Jatra	West Bengal
Jhulan Leela	Rajasthan
Kaikotti Kalli	Kerala
Kummi	Tamil Nadu

Kajri	Uttar Pradesh
Kayanga	Himachal Pradesh
Karan	Uttar Pradesh
Kathi	West Bengal
Kayanga Bajavanga	Rajasthan
Khayal	Rajasthan
Kokattam	Tamil Nadu
Koodiyattam	Kerala
Kottam	Andhra Pradesh
Krishnanathani	Kerala
Kumanon	Uttar Pradesh
Lai Haroba	Manipur
Lavani	Maharashtra
Lezim	Maharashtra
Lota	Madhya Pradesh
Luddi	Himachal Pradesh
Macha	Madhya Pradesh
Maha Rassa	Manipur
Mudivettu	Kerala
Munzra	Himachal Pradesh
Nautanki	Uttar Pradesh
Ojapali	Asom
Pandvani	Madhya Pradesh
Rasila	Gujarat
Rauf	Jammu & Kashmir
Swang	Haryana

Tamasha	Maharashtra
Tappatrikali	Kerala
Therukoothu	Tamil Nadu
Theyyam	Kerala
Tippani	Gujarat
Veethi Bhagavata	Andhra Pradesh

Indian Fairs and Festivals

Festivals in India are determined by Solar and Lunar positions and they **may fall in the different month** as specified below:-

January	• Maker Sankranti • Lohri • Pongal • Thai Pusam • Flot Festivals • National Kite Festival • Kerela Village Fair • Bikaner Festival • Pattadakal Dance Festival • Id-ud-Fitr • Vasant Panchami
February	• Mahashivratri • Goa Carnival • Desert Festival • Nagaur Fair • International Yoga Week • Elephant Festival • Deccan Festival • Taj Mahotsav • Surajkund Crafts Mela • Chapchar Kut • Islands Tourism Festivals

March	• Holi • Ganaur • Jamshed-e-Navroz • Ramnavami • Id-ul-Zuha • Mahavir Jayanti • Khajuraho Dance Festival • Elephant Festival • Hoysla Mahotsava • Ellora Festival
April	• Good Friday • Easter • Baisakhi • Gudi Padva or Ugadi • Pooram • Muharram • Buddha Purnima • Mewar
May	• Urs Festival
June	• Ganga Dussehra • Hemis Festival
July	• Rathyatra • Guru Purnima
August	• Janmashtami • Onam • Nag Panchami • Rakshabandhan • Ganesh Chaturthi
September	• Tarnetar Mela
October	• Navratri • Durga Puja. • Dussehra • Marwar Festival
November	• Sharad Purnima • Diwali • Guru Purab

	• Ka Pomblang Nongrem • Sonapur Fair • Pushkar Fair • Hampi Festival
December	• Christmas • Konark Dance Festival

Transportation in India

A well known and co-ordinated system of transport plays an important role in the sustained economic growth of a country. The present transport system of India comprises several modes of transport including rail, road, coastal shipping, air transport, etc. Transportation in India has recorded a substantial growth over the years both in spread of network and in output of the system. The Ministry of Shipping, Road Transport and Highways is responsible for the formation and implementation of policies and programmes for the development of various modes of transport save the railways and the civil aviation.

Railways

The Railways in India provide the principal mode of transportation for freight and passengers. It brings together people from the farthest corners of the country and makes possible the conduct of business, sightseeing, pilgrimage and education.

Indian Railways is the largest railway system in the world under a single management.

The Indian Railways has been a great integrating force during the last more than 150 years. It has bound the economic life of the country and helped in accelerating the development of industry and agriculture. From a very modest beginning in 1853, when the first train steamed off from Mumbai to Thane, a distance of 34 kilometers Indian Railways has grown into a vast network of 6,909 stations spread over a route length of 63,327 kilometers with a fleet of 8,153 locomotives, 45,350 passenger service vehicles, 5,905 other coaching vehicles and 2,07,719 wagons as on 31st March, 2007. The growth of Indian Railways in the 150 years of its existence is thus phenomenal. It has played a vital role in the economic, industrial and social development of the country. The gauge-wise route and track lengths of the systems as on 31st March, 2007 are as under:-

Gauge	Route in Km	Running Track in Km	Total Track in Km
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Borad Guage (1.676 mm)	49,820	71,015	93,386
Meter Guage (1.000 mm)	10,621	11,487	13,412
Narrow Guage (762 mm and 610 mm)	2,886	2,888	3,198

About 28 percent of the route kilometer, 39 per cent of running track kilometer and 41 per cent of total track kilometer is electrified.

The network is divided into 16 zones. Divisions are basic operating units. The 16 zones are their respective headquarters are given below.

Zonal Railways	Headquarters
Central	Mumbai CST
Eastern	Kolkata
Northern	New Delhi
Northern-Eastern	Gorakhpur
North-East Frontier	Maligaon (Guwahati)
Southern	Chennai
South Central	Secunderabad
South-Eastern	Kolkata
Western	Church Gate, Mumbai
East Central Railway	Hajipur
East Coast Railway	Bhubaneswar
North Central Railway	Allahabad
North Western Railway	Jaipur

South-East Central Railway	Bilaspur
South-Western Railway	Hubli
West Central Railway	Jabalpur

Co-operation between public and Railway Administration is secured through various committees including Zonal Railway User's Consultative Committees and Divisional Railway User's Consultative Committees.

Public Undertakings

There are ten public undertakings under the administrative control of the Ministry of Railways, viz.

1. Rail India Technical & Economic Services Limited (RITES)
2. Indian Railway Construction (IRCON) International Limited
3. Indian Railways Finance Corporation Limited (IRFC)
4. Container Corporation of India Limited (CONCOR)
5. Konkan Railway Corporation Limited (IRCTC)
6. Indian Railway Catering & Tourism Corporation Limited (IRCTC)
7. Railtel Corporation of India Limited (Rail Tel)
8. Mumbai Rail Vikas Nigam Limited (MRVNL)
9. Rail Vikas Nigam Limited (RVNL)
10. Dedicated Freight Corridor Corporation of India Limited (DFCCIL)

The Center for Railway Information System (CRIS) was set up as a registered society to design and implement various railway computerization projects.

Research & Development

The Research, Design and Standards Organization (RDSO) at Lucknow is the R & D wing of Indian Railways. It functions as a consultant to the Indian Railways in technical matters. It also provides consultancy to other organizations connected with railway manufacture and design.

Following are the some of the important Indian Railway Facts

- The total distance covered by the 14,300 trains on the Indian Railways everyday, equals three & half times the distance to moon
- The first train on Indian soil ran between Bombay and Thane on the 16th of April 1853
- IR has about 63,028 route kms. of track

- IR employs about 1.55 million people
- It carries over 13 million passengers & 1.3 million tones of freight everyday
- It runs about 14,300 trains daily
- IR has about 7,000 railway stations
- The longest platform in the world is at Kharagpur and is 2,733 ft. in length
- Nehru Setu on Sone River is the longest Railway bridge
- 42 Railway companies operated in the country before independence
- Electric Locomotives are manufactured at Chittaranjan Locomotive Works, Chittaranjan
- Coaches are manufactured at ICF/Chennai, RCF/Kapurthala and BEML/Bangaluru
- The national Rail Museum at New Delhi was set-up in 1977
- People Employed in Indian Railway are about 1.6 million
- Stations across State Lines are Navapur (Maharashtra and Gujarat) and Bhawani Mandi (Madhya Pradesh and Rajasthan)
- Classes of travel on Indian Railway: Ist AC, 2nd AC, 3rd AC, AC Chair Car IInd sleeper & IInd ordinary
- Railway Station with all the Three Gauges is Siliguri Railway Station
-

First/Longest/Oldest in Indian Railways

First Passenger Train Ran On	16th April 1853 (between Bombay to Thane)
First Railway Bridge	Dapoorie Viaduct on the Mumbai-Thane route
First Rail Tunnel	Parsik Tunnel
First Ghats Covered by the Rail lines	Thal and Bhore Ghats
First Underground Railway	Calcutta METRO
First Computerized Reservation System started in	New Delhi (1986)
First Electric Train ran on	3rd Feb' 1925 (between Bombay VT and Kurla)
Toilets on Trains were introduced in	1891 (1st Class) & 1907 (lower classes)
Shortest Station Name	Ib (Orissa)
Longest Station Name	Sri Venkatanarasimharajuvariapeta (Tamil Nadu)
Busiest Railway Station	Lucknow (64 trains everyday)
Longest Run (Time)	Vivek Express (3715 km in Approx 71 hrs)
Shortest Run	Route between Nagpur to Ajni (3km)
Longest Run for Daily Train	Kerala Express (3054 km in 42.5 hrs)

Longest Non-Stop Run (Distance)	Trivandrum Rajdhani (528 km in 6.5 hrs)
Longest Railway Platform in the World	Kharagpur (2,733 ft in length)
Longest Railway Bridge	Nehru Setu on Sone River (10044ft in length)
Longest Tunnel	Karbude On Konkan Railway between Monkey hill & Khandala (6.5 km)
Oldest Preserved Locomotive	Fairy Queen (1855), still in working order
Indian Railway's Fastest Train	Bhopal-Shatabdi (runs at a speed up to 140 Km/ph)
Train with Maximum Number of Halts	Howrah-Amritsar Express (115 halts)

Roads

India has one of the largest road networks in the world, aggregating to about 33 lakh kilometers at present. The country's road network consists of National High-ways, State Highways, major/other district roads and villages/rural roads.'

India has one of the largest road networks in the world, aggregating to about 33 lakh kilometers at present. Though the National Highways, which is the responsibility of Central Government, has length of roads, carries over 40 percent of the total traffic across the length and breadth of the country.

National Highways/Expressways	65,590 km
State Highways	1,28,000 km
Major and other District Roads	4,70,000 km
Rural Roads	26,50,000 km

The National Highways have further been classified depending upon the carriageway width of the Highway. Generally, a lane has a width of 3.75 m in case of single lane and 3.5 per lane in case of multilane National Highways. The break-up of National Highways in terms of width is as under:-

Single Lane	32 %
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Double/Intermediate Lane	56 %
Four Lane/Six Lane/Eight Lane	12 %

National Highways

The Central Government is responsible for development and maintenance of the National Highways system. The Ministry carry out development and maintenance work of National Highways through three agencies. viz. National Highway Authority of India (NHAI), State Public Works Departments (PWDs) and Border Road Organisation (BRO).

In order to give boost to the economic development of the country, the Government has embarked upon a massive National Highways Development Project (NHDP) in the country. The NHDP is the largest highway project ever taken in the country. The NHDP is being implemented by National Highways Authority of India. (NHAI)

Public-Private Partnership

Traditionally, the road projects were financed only out the budgetary grants and were controlled/supervised by the Government. The road system has attracted very limited private sector participation in the past. While the traffic has been constantly increasing at a rapid pace, the traditional system of financing road projects through budgetary allocation has proved to be inadequate. It was in this context that the necessity for exploring the innovative means of financing the highly capital intensive road projects was felt.

The beginning of a significant private sector participation in road projects was made with the launching of India's largest road project - National Highways Development Project (NHDP). To encourage private sector participation, several initiatives have been taken by the government, which includes:-

- Declaration of the road sector as an industry.
- Provision of capital subsidy up to 40 % of the project cost to make projects commercially viable.
- 100 % tax exemption in any consecutive 10 years out of the first 20 years of a project.
- Provision of encumbrance free sites for work, i.e. the Government shall meet all the expenses relating to land and other pre-construction activities.
- Foreign Direct Investment up to 100 % in road sector.
- Easier external commercial borrowing norms
- Higher concession period, (up to 30 years)
- Right to collect and retain toll

Research and Development in Road Development

The main thrust of research and development (R & D) in the roads sector is to build a sustainable road infrastructure comparable to the best roads in the world. The various components of this strategy are improvement in design, modernization of construction techniques, introduction of improved material conforming to latest trends, evolving better and appropriate specifications, encouraging development and use of new technologies etc. The dissemination of these matters is done through the publication of new guidelines, code of practices, instructions/circulars, compilation of state-of-the-art reports and seminars/presentations etc. The research schemes sponsored by the Department are generally 'applied' in nature, which, once completed, would enable them to be adopted by user agencies/departments in their work in the field. The areas covered are roads, road transport, bridge,

traffic and transportation techniques etc. The Department takes the help of various research institution, academic institutions and universities to implement the schemes. Some of the major schemes are as follows:-

Roads

1. Development of GIS based National Highways information system
2. Guidelines for soil nailing techniques in highways engineering
3. Pilot study on effect of overloading on road infrastructure
4. Investigation on field performance of bituminous mixes with modified binders
5. R & D Studies on performance evaluation of rigid pavements on high density traffic corridors using instrumentation supported by laboratory tests.

Bridges

1. Creation of complete range of independent testing facility at Central Road Research Institute (CRRI), New Delhi.

The Border Road Organisation (BRO) is a road construction executive force, integral to and in support of the army. It started operation in May 1960 with just two projects, Project Tuskar (renamed Project Vartak) in the east and Project Beacon in the west. It has now grown into a 13-project executive force, supported by a well-organised recruiting/training centre and two well-equipped base workshops for overhaul of plant/equipment and two Engineer Store Depots for inventory management.

The BRO has not only linked border areas of north and north-east with the rest of the country, but also developed the road infrastructure in Bihar, Maharashtra, Karnataka, Rajasthan, Andhra Pradesh, Andaman and Nicobar Islands, Uttarkhand and Chattisgarh.

Functions of the BRO

The BRO was brought into being to construct and maintain roads in the border areas, classified as General Staff (GS) roads, in keeping with defence requirements. GS roads are developed and maintained with the funds provided by the Border Roads Development Board (BRDB), through the Department of Road Transport and High-ways.

Besides GS roads, BRO also executes Agency Works, which are entrusted to it by other Central government ministries and departments. Works entrusted by public sector undertakings, state governments and other semi-government organizations are executed as Deposit Works. Over the years, the BRO has diversified into the construction of airfields, permanent steel and pre-stressed concrete bridges and accommodation projects.



Important Milestones

- The construction of nine km long Rohtang Tunnel, related access roads to its portals and a 292 km long alternate route to Leh, at an approximate cost of Rs. 1355.82 crore was entrusted to the Organisation. Length of approach road to South Portal of Rohtang Tunnel is 14.84 km and to the North Portal is 0.975 km. The construction works have so far progressed as per target. The target date of completion of Rohtang tunnel is March 2014.
- The BRO has been entrusted with the four laning of a stretch of NH-1A from Jammu-Vijaypur as part of NHDP's North-South corridor, on behalf of the NHAI. The cost of this project is estimated at Rs. 83.88 crore.
- BRO has been assigned the task of rehabilitation of roads in the tsunami affected areas of Andaman and Nicobar Islands. A team of about 300 personnel and 50 vehicles/equipments/plants have been inducted into Andaman and Nicobar Islands. Rs. 10 crore

for mobilization advance and Rs. 72.11 crore for North-South and East-West road has been deposited by the Andaman & Nicobar administration.

Shipping

- Shipping plays an important role in the transport sector of India's economy. Approximately, 90 percent of the country's trade by volume (70 per cent in terms of value) is moved by sea. India has the largest merchant shipping fleet among the developing countries and ranks 20th amongst the countries with the largest cargo carrying fleet with 8.83 million GT as on 01.06.2008 and the average of the fleet being 18 years.

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Coastal Shipping

Coastal Shipping is an energy-efficient, environment-friendly and economical mode of transport in the Indian transport network and a crucial component for the development of domestic industry and trade. India, with her 7,517 km long coastline studded with 13 major ports and 200 non-major ports provides congenial and favourable conditions for the development of this alternate mode of transport.

Aids to Navigation

Since Independence, India has made rapid growth in aids to Marine Navigation. From 17 Lighthouses prior to Independence, the present strength of aids to Navigation consists of 171 Lighthouses, one Lightship, one Loran-C Chain Stations, 59 Racons, 21 Deep Sea Lighted Buoys 01 wreck marking and 22 installations under Differential Global Positioning System (DGPS). To cater the needs of light stations in the islands and for maintaining the buoys, the Directorate General of Lighthouses and Lightships is maintaining three launches, one mechanised boat and two large ocean going vessels, M.V. Sagardeep-II and M.V. Pardeep.

Maritime Training

The Director General of Shipping is responsible for creation of the trained manpower required for the merchant navy fleet of the country. This national obligation is being met through the Government training institutes and a number of other approved training institutes in the private sector. The importance of organised training was recognised in the year 1927 when the Training Ship "Dufferin" was established. Since then many highly skilled Indian seafarers have been trained in India who have earned commendable reputation at home and abroad.

The four training institutes, which were established by the Government are:-

1. **Training Ship 'Chanakya'** which conducts
 - i. Three years B.Sc degree course in Nautical Sciences under the University of Mumbai
 - ii. Pre-Sea training course for Deck Cadets.

2. **Marine Engineering and Research Institute (MERI), Kolkata** which conducts four years degree course in Marine Engineering under Jadavpur University.
3. **Marine Engineering & Research Institute (MERI), Mumbai** conduct
 - i. one year Training Marine Engineering Course for graduate Mechanical Engineerings and
 - ii. Three-year B.Sc. degree course in Maritime Sciences (polyvalent degree) under the University of Mumbai
4. **LBS College of Advance Maritime Studies & Research, Mumbai**, conducts almost 46 post-sea training courses for serving Marine Officers.

In addition to the above, there are about 124 training institutes in the private sector approved by the Director General of Shipping, imparting pre-sea and post-sea training in various disciplines.

Shipping Corporation of India Limited



The Shipping Corporation of India Ltd (SCI) was formed on 2nd October 1961. The present authorised capital of the Company is Rs. 450 crore and paid up capital is Rs 282.30 crore. The status of SCI has been changed from a private limited company to Public limited from 18 September 1992. The SCI was conferred 'Mini Ratna' status by the Government of India on 24 February 2000. At present, the Government is holding 80.12 per cent of share capital and the balance is held by financial institutions, public and others (NRIs, Corporate Bodies, etc.). SCI signed Memorandum of Understanding with the Ministry of Shipping, Road Transport & Highways, Government of India on 27 March 2008.

On 8th March, 2007, SCI was awarded MOU Excellence Certificate for the year 2004-05 and 2005-06 by the Government of India, Ministry of Heavy Industry and Public Enterprises, Department of Public

Enterprises. SCI was the winner of the best international solution award and the third annual HBSC global payments and cash management partnership award, which was posted in Bangaluru on 5th November 2007. The SCI won the "Shipowner/operator of the year 2007" at the searade middle east and Indian sub-continental award 2007, held in Dubai in November, 2007 SCI also won the "Shipowner of the year 2007" at Lloyds list Middle east and Indian Sub-continental award, held in Mumbai in November 2007

Cochin Shipyard Limited

Situated in the Western coast of India in the city Cochin, State of Kerala, Cochin Shipyard is the largest shipyard in the country. Incorporated in the year 1972, Cochin Shipyard can build ships upto 1,10,000 DWT and repair ships upto 1,25,000 DWT. The yard has built varied types of ships including tankers, bulk carriers, ports crafts, offshore vessels and passenger vessels. The orders executed by CSL in recent past include carriers for M/s Clipper Group, Bahamas, firefighting tugs for M/s ATCO, Saudi Arabia and Platform Supply Vessels for M/s Deep Sea Supplies, Norway.

The yard is also a leading ship-repairer of the country and has repaired more than 1200 ships of all types. These include upgradation of vessels belonging to ONGC, periodical lay up repairs and life extension of ships of Navy and Coast Guard. The yard had been consistently achieving profits for the last several years.



Garden Reach Shipbuilders & Engineers LTD. KOLKATA



The Garden Reach Shipbuilders & Engineers Limited was incorporated as a joint stock company in 1934, under the name M/s Garden Reach Worskhop Limited (GRW). The Government of India acquired the company in 1960. It was renamed as "Garden Reach Shipbuilders & Engineers Limited (GRSE)" on 01 January 1977.

The company builds and repairs warships and auxillary vessels for the Navy and Cost Guard. Its present product range includes corvettes, frigates, fleet tankers, patrol-vessels, fast attack craft, high technology ship brone equipment, portable bailey type steel bridges, turbine pumps for the agricultural sector, Marine Sewage Treatment Plants, Diesel Engines etc. "Mini-Ratna Status Category-I" was conferred on GRSE on 5 September 2006.

Hindustan Shipyard Limited, VISAKHAPATNAM



Hindustan Shipyard Limited (HSL), Visakhapatnam as set up in 1941 in the private sector and was taken over by the Government in 1952. In 1962, the shipyard became a central public sector enterprise. The shipbuilding capacity of the yard is 3.5 pioneer class vessels of 21,500 DWT each. The maximum size of vessel that could be built is 50,000 DWT. HSL is the first shipbuilding yard in the country which was awarded ISO:9001 certification by Lloyds Register of Quality Assurance, London for international standard of quality assurance. For ship repairs, the yard has facilities such as modern dry dock, wet basin, repair shops, etc., and it can undertake repairs of submarine,

tankers adn ships up to 70,000 DWT. HSL has an exclusive offshore platform construction yard capable of constructing two platforms per annum.

Hooghly Dock and Port Engineers Limited, KOLKATA



Hooghly Dock and Port Engineers Limited (HDPEL), Kolkata became a Central Public Sector Undertaking in 1984. The company has two working units in Howrah District of West Bengal, one at Salkia and another at Nazirgunge. The installed capacity in shipbuilding is 1,100 tonnes per annum and in ship repairs 125 ships per annum. Apart from a dry dock and a jetty, it has six shipways. The yard is capable of constructing various types of ships (including passenger ships) and other vessels such

as dredgers, tugs, floating dry docks, fishing trawlers, supply-cum-support vessels, multi-purpose harbour vessels, lighthouse tender vessels, barges, mooring launches, etc., and undertaking repairs of different types of vessels.

Ports

The coastline of India is dotted with 12 Major Ports and about 200 Non-major Ports. The Major Ports are under the purview of the central while the Non-major Ports come under the jurisdiction of the respective State Governments.

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The 12 Major Ports (including the Port of Ennore which is a corporate port set up under the Indian Companies Act, 1956) are evenly spread out on the Eastern and Western coast. The ports of Kolkata, Paradip, Visakhapatnam, Chennai, New Mangalore, Mormugao, Mumbai, Jawaharlal Nehru at Jhavasheva and Kandla are on the Western Coast. The capacity of major ports have increased from 20 Million Tonnes per annum (MTPA) 1951 to 504.75 as on 31st March, 2007.

Civil Aviation

The Ministry of Civil Aviation is responsible for the formulation of national policies and programmes for development and regulation of civil aviation and for devising and implementing schemes for orderly growth and expansion of civil air transport.

The Ministry of Civil Aviation is responsible for the formulation of national policies and programmes for development and regulation of civil aviation and for devising and implementing schemes for orderly growth and expansion of civil air transport. Its functions also extend to overseeing the provision for airport facilities, air traffic services, carriage of passengers and goods by air, safeguarding civil aviation's operations, regulations of air transport services, licensing of aerodromes, air carriers, pilots and aircrafts maintenance engineers. The ministry also administratively controls the institution of Commission of Railway Safety, which is responsible for the safety in rail travel and operations in terms of provisions of the Railways Act.

India has been a member of the International Civil Aviation Organisation (ICAO) and is also on the Council of ICAO since its operations. The civil aviation sector has three main functional divisions - regulatory, infrastructural and operational.

Cargo : Airports Authority of India (AAI) has established integrated cargo terminals at metro airports viz Delhi, Mumbai, Kolkata and Chennai, wherein all the regulatory and facilitating agencies have been housed under one roof in order to facilitate faster processing/movement/clearance of international cargo. The management of Delhi and Mumbai Airports have been taken over by the two separate JVCs namely Delhi International Airport Limited and Mumbai International Airport Limited respectively, with effect from 3rd May 2006.

Airports Authority of India : Airports Authority of India (AAI) was constituted on 1st April 1995 by merging erstwhile National Airports Authority (NAA) and International Airport Authority of India (IAAI). The integration of NAA and IAAI was aimed to derive the synergy of merger and build a new organisation to take up upcoming challenges in competitive environment. Civil aviation, world over, has gone a sea change and the Airports Authority of India (AAI) is ready to meet these challenges both at national and international levels.

Training : AAI imparts trainings at its own Civil Aviation Training College, Allahabad on various operational areas like Air Traffic Control, Radars, Communication, etc. It maintains the National Institute of Aviation Management and Research (NIAMAR) at Delhi for imparting various aviation management training programmes and refresher courses. In addition there is a Fire Service Training School at Narayanpur near Kolkata and the Fire Training Centre at New Delhi for imparting training and conducting refresher courses on fire fighting rescue services.

Inland Water Transport

India has about 14,500 km of navigable waterways which comprise rivers, canals, backwaters, creeks, etc. About 50 million tonnes of cargo corresponding to 2,82 billion tonne km was transported in 2005-2006 by Inland Water Transport (IWT). Its operations are currently restricted to a few stretches in the Ganga-Bhagirathi-Hooghly Rivers, the Brahmaputra, the Barak River, the rivers in Goa, the backwaters in Kerala, inland waters in Mumbai and the deltaic regions of the Godavari-Krishna rivers.

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Inland Waterways Authority of India The Inland Waterways Authority of India (IWAI) came into existence on 27 October 1986 for development and regulation of inland waterways for shipping and navigation. The Authority primarily undertakes projects for development and maintenance of IWT infrastructure on national waterways through grant received from Ministry of Shipping, Road Transport and Highways. The head office of the Authority is located at Noida. The Authority also has its regional offices at Patna, Kolkata, Guwahati and Kochi and sub-offices at Allahabad, Varanasi, Bhagalpur, Farakka and Kollam.

National Waterways The Ganga between Allahabad-Haldia (1620 km) the Sadiya-Dhubri stretch of river Brahmaputra (891 km) and Kollam-Kottapuram stretch of West Coast Canal along with

Champakara and Udyogmandal Canals (205 km) in Kerala have so far been declared as National Waterways and are being developed for navigation by IWAI. Bills for declaration of 3 more waterways viz. Talcher-Darmra stretch of canals; Kakainada-Puducherry stretch of canals etc. and the Barak Rivers as National Waterways have already been introduced in the Parliament.

Sports in India

The history of sports in India is very ancient and dates back to the Vedic era. It is more likely that many of today's Olympic disciplines are advanced versions of games of strength and speed that flourished in ancient India. Chess, wrestling, polo, archery and hockey (possibly a fall-out from polo) are some of the games believed to have originated in India.

Following are the some of games played in India

1. **Gilli-Danda:** It is a sport played using one small stick called 'gilli' and one long stick called 'danda' like cricket with ball being replaced by Gilli. This games is generally played in villages of Rajasthan, Uttar Pradesh, Madhya Pradesh and Haryana etc states of India.
2. **Kancha:** It is played using marbles called 'kancha' in India in cities as well as in villages also. The festival of 'Makar Sankranti' is marked with competitions of this sport in various competitions.
3. **Badminton:** Badminton is a very popular sport in India. Badminton is supposed to have originated in India 2000 years ago.
4. **Bandy:** India is having a Bandy team and Bandy Federation of India takes care of it. It's headquarters are in Himachal Pradesh. Bandy is generally played in northern India where there is generally snow and ice.
5. **Boxing:** Boxing is not so populated game in India. During the 2008 Beijing Olympics, Vijender Kumar won a bronze medal in the middleweight boxing category and Akhil Kumar and Jitender Kumar qualified for the quarterfinals.
6. **Cricket:** Cricket is the most popular sport in India. India won the 1983 Cricket World Cup under Kapil Dev and finished as runner-up in the 2003 World Cup under Sourav Ganguly.
7. **Cycling:** This history of cycling in India dates back to 1938. Cycling Federation of India takes care of the sport.
8. **Golf:** Golf is an emerging sport in India. It is more popular in wealthier classes than the middle class and poor class peoples in India. There are numerous golf courses all over India. There is an Golf Tour. India's men's golf team won silver at the 2006 Asian Games.
9. **Ice hockey:** Ice hockey in India is mainly played in the Himalayan region of Ladakh in Jammu and Kashmir. In winter season the game is extremely popular and there are more than 25 clubs and villages that play the sport. However, due to shortage of artificial freezing, the game is limited to cold winter months of December, January and February which facilitate natural freezing of lakes and ponds.
10. **Kayaking:** Indian flat kayakers are considered emerging powerhouse in the Asian circuit. Aside from professional flat water kayaking, there is very limited recreational kayaking. Indian tourists consider kayaking a one-time activity and not a sport to be pursued.
11. **Kabaddi :** Kabaddi sport basically originated in India. It is one of the most popular sport in India played mostly in villages. India has taken part in four Asian games Kabaddi and won gold in all four of them.

12. **Lawn tennis:** Tennis is popular among Indian in urban areas. However, India's fortunes in the Grand Slams singles have been unimpressive although Leander Paes and Mahesh Bhupati have won may Men's Doubles and Mixed Doubles Grand Slam titles.
13. **Mountain biking :** Mountain biking is getting popular in India also. From the last four years, Himachal MTB has been organised regularly by HASTPA, and NGO. It is attended by a number of national and international participants, such as Indian Force, Indian Air Army, ITBP and a number of young and energetic MTB individual riders from cities like Bangalore, Pune, Chandigarh and Delhi.
14. **Ruby:** Like other sports founded in England and introduced during the British Raj such as cricket, rugby union has a long history in India. The first recorded match was played on Christmas day 1872, at CFC in Calcutta. Although low in profile as compared to cricket or field hockey, it is growing as some Indian sporting clubs are beginning to embrace the game.
15. **Throwball:** Throwball is also gaining popularity in India as a competitive sport and Indian authorities of the game was instrumental in organizing Asian level and later, world level association for the sport. The game is popularly played in schools, clubs, colleges throughout Asian countries such as India, Korea, Sri Lanka, China, Japan, Pakistan and Nepal.
16. **Voolleyball:** Volleyball is a sport played all over India, both in urban as well as rural India. It is a popular recreation sport. Indian ranked 5th in Asia and 27th in the world. Currently, an important problem for the sport is the lack of sponsors.

Sports Cup Trophies

Sport	Cups and Trophies
Hockey	Aga Khan Cup, Begam Rasul Trophy (women's), Maharaja Ranjit Singh Gold Cup, Lady Ratan Tata Trophy (women's), Gurunanak Championship (women's), Dhyan Chand Trophy, Nehru Trophy, Sindhia Gold Cup, Murugappa Gold Cup, Wellington Cup etc
Football	Beghum Hazarat Mahal Cup, BILT Cup, Bordoloi Trophy, Colombo Cup, Confederation Cup, DCM Trophy, Durand Cup, Rovers Cup, BC Rai Trophy (National Championship), FIFA World Cup, Jules Rimet Trophy, Kalinga Cup, Santosh Trophy (National Championship), IFA Shield, Scissor Cup, Subroto Mukherjee Cup, Sir Ashutosh Mukherjee Trophy, Todd Memorial Trophy, Vittal Trophy, etc.
Cricket	Anthony D' Mellow Trophy, Ashes, Asia Cup, Benson and Hedges Cup, Bose Trophy, Champions Trophy, Charminar Challenger Cup, CK Naidu Trophy, Cooch - Behar Trophy, Deodhar Trophy, Duleep Trophy, Gavaskar - Border Trophy, GD Birla Trophy, Gillette Cup, Ghulam Ahmand Trophy, Hakumat Rai Trophy, ICC World Cup, Irani Trophy, Interface Cup, Jawaharlal Nehru Cup, Lombard World Challenge Cup, Mc Dowells Challenge Cup, Merchant Cup, Moin-ud-Dowla Cup, Nat West Trophy, Prudential Cup (World Cup), Rani Jhansi Trophy, Ranji Trophy, Rohinton Baria Trophy, Rothmans Cup, Sahara Cup, Sharjah Cup, Sheesh Mahal Trophy, Sheffield Shield, Singer Cup, Sir Frank Worrel Trophy, Texaco Cup, Titan Cup, Vijay Hazare Trophy, Vijay Merchant Trophy, Vizzy Trophy, Wisden Trophy, Wills Trophy, World Series Cup.

Table Tennis	Berna Bellack Cup (men), Corbillion Cup (women), Jai Laxmi Cup (women), Rajkumari Challenge Cup (women junior), Ramanuja Trophy (men junior), Travancore Cup (women), Swathling Cup (men), etc
Badminton	Aggarwal Cup, Amrit Diwan Cup, Asia Cup, Australasia Cup, Chaddha Cup, European Cup, Harilela Cup, Ibrahim Rahimatollah Challenger Cup, Konica Cup, Narang Cup, SR Ruia Cup, Sophia Cup, Kitiakara Cup, Thomas Cup, Tunku Abdulrahman Cup, Uber Cup, World Cup, Yonex Cup etc
Basketball	Basalat Jha Trophy, BC Gupta Trophy, Federation Cup, SM Arjuna Trophy, Todd Memorial Trophy, William Jones Cup, Bangalore Blues Challenge Cup, Nehru Cup, Federation Cup etc.
Bridge	Basalat Jha Trophy, Holkar Trophy, Ruia Gold Cup, Singhanian Trophy, etc
Polo	Ezra Cup, Gold Cup, King's Cup, Prithi Cup, Schneider Cup etc.
Athletics	Charminar Trophy, Federation Cup etc
Air Racing	Jawaharlal Challenge Trophy, King's Cup, Schneider Cup etc
Billiards	Arthur Walker Trophy, Thomas Cup etc
Boxing	Aspy Adjahia Trophy, Federation Cup, Val Baker Trophy etc.
Golf	Canada Cup, Eisenhower Trophy, Muthiah Gold Cup, Nomura Trophy, President's Trophy, Prince of Wales Cup, Ryder Cup, Solheim Cup, Topolino Trophy, Walker Cup, World Cup etc
Chess	Naidu Trophy, Khaitan Trophy, Limca Trophy, Lin Arc City Trophy, World Cup, etc
Horse Racing	Beresford Cup, Blue Raiband Cup, Derby, Grand National Cup etc.
Netball	Anantrao Pawar Trophy, etc
Rugby Football	Bledisloe Cup, Calcutta Cup, Webb Ellis Trophy, etc
Shooting	North Wales Cup, Welsh Grand Pix etc
Volleyball	Centennial Cup, Federation Cup, Indira Pradhan Trophy, Shivanthi Gold Cup, etc
Yatching	America Cup, etc

Famous Sport and Stadium

Stadium	Sports	Place
In India		

Indraprastha Stadium	Indoor Games	Delhi
Jawaharlal Nehru Stadium	Athletics	Delhi
Ferozeshah Kotla Ground	Cricket	Delhi
Ambedkar Stadium	Football	Delhi
Shivaji Stadium	Hockey	Delhi
National Stadium	Hockey	Delhi
National Stadium	Hockey and Others	Mumbai
Wankhede Stadium	Cricket	Mumbai
Brabourne Stadium	Cricket	Mumbai
Eden Gardens	Cricket	Kolkata
Green Park Stadium	Cricket	Kanpur
Keenan Stadium	Cricket	Jamshedpur
Nehru (Chepak) Stadium	Cricket	Chennai
Varabati Stadium	Cricket	Cuttack
In World		
Aintree, Doncaster, Epsom	Horse racing	England (UK)
Flemington	Horse racing	Melbourn (Australia)
Headingley Manchester	Cricket	England (UK)
Lords, Oval, Leeds	Cricket	England (UK)
Black Heath	Rugby Football	London (UK)
Wimbledon	Lawn Tennis	London (UK)
Wembley Stadium	Football	London (UK)
Brookland	Football	England (UK)
Twickenham	Rugby Football	England (UK)
Putney Mart Lake	Boat Race	England (UK)
Trent Bridge	Cricket	England (UK)
White City	Dog race	England (UK)
Hurlington	Polo	England (UK)
Henlay	Regata	England
Brisbane, Melbourne	Cricket	Australia

Perth, Sydney	Cricket	Australia
Yankee Stadium	Boxing	New York (USA)
Brooklyn	Baseball	New York (USA)
Forest Hill	Tennis	USA
Sandy Lodge	Golf	Scotland

Number of Players in Sports

Sports	Number of Players
Baseball	9
Rugby football	15
Polo	4
Water Polo	7
Kho Kho	9
Kabaddi	7
Hockey	11
Football (Soccer)	11
Cricket	11
Netball	7
Volleyball	6
Badminton	1 or 2 (Singles & Doubles respectively)
Tennis	1 or 2 (Singles & Doubles respectively)
Table Tennis	1 or 2 (Singles & Doubles respectively)
Basketball	5
Gymnastic	Several individuals compete simultaneously
Billiards/Snooker	1
Boxing	1
Chess	1
Bridge	2

Croquet	13 or 15
Golf	Several individuals compete simultaneously
Lacrosse	12

Court/Campus/Field	Games/Sports
Court	Tennis, Badminton, Net Ball, Handball, Volleyball, Squash, Kho-Kho, Kabaddi
Diamond	Baseball
Ring	Skating, Boxing
Course	Golf
Pool	Swimming
Board	Table Tennis
Mat	Judo, Karate, Taikwondo
Arena	Horse riding
Vellodrome	Cycling
Field	Polo, Football, Hockey
Track	Athletics
Pitch	Cricket
Greens	Bowls
Rink	Curling, Ice Hockey
Range	Shooting, Archery

Olympic Games History

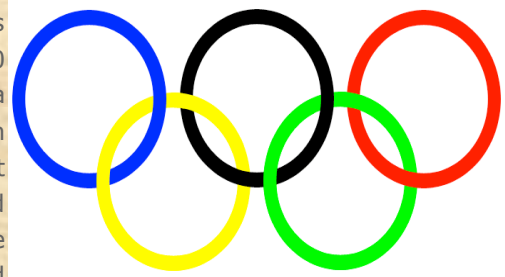
The origin of the ancient Olympic Games is lost in the midst of pre-history, but for many centuries they were only a festival of the Greek people. The Games were first held in honour of the Greek god, Zeus in 776 BC in the plain of the kingdom of Elis, nestled in a lush valley between the Alpheus River and Mount Kronion, 15 km from the Ionian Sea. The Olympiad celebrated that year was considered as the first and was used to date subsequent historic events. But religious ceremonies and games were held in Olympia before that time. The oldest sanctuary of Greece was there, the altar of the Great Mother of Gods, Rhea (Earth). On the day of the feast, the priest stood in front of the altar, ready to perform a sacrifice. Women were forbidden to be present on one stadium (about 200 yds.) As soon as a signal was given

they ran and the first to arrive at the altar received the torch from the priest's hand and lit the sacrifice fire.

The old Olympiads were held after every four years and the Greeks measured time in terms of Games started on the first new moon after the summer solstice, around mid July. The ancient Olympic Games lasted for five days and the events took place in a precise order. On the first day, there were sacrifices and opening ceremonies. On the second day there were special competitions for the 'ephebeians'. The third day was devoted to events for adult competitors: dromos, diaulos, dolichos, pugilism, wrestling, race with arms.

The games came to a sudden end when the Rome Emperor Theodosius banned the competitions and their attendant sacrificial offerings as pagan manifestations. From 395 AD onwards the fall of Olympia was very rapid. In that year the first damage was caused by the invasion of Alaric's barbarians. A year earlier the famous crysele-phante statue of Zeus had been taken to Constantinople. It was destroyed in 475 AD during the great fire. Following the attacks on the Goths, a fire destroyed the temple of Zeus; earthquakes from 522 to 551 and the most severe of all in 580 brought down whatever had remained standing. Glory had vanished and of the vast riches there were now left but a few ruins and the name of Olympia. Something immortal remained, however, and that was the Olympic spirit.

Modern Olympic Games : The revival work of the Games was undertaken by Baron Pierre de Coubertin nearly 1,500 years after the last of the ancient Games. He was born into a family of Italian origin which had settled in France. It was on November 25, 1892, during a conference at Sorbonne about the history of physical exercises, that the first pronounced those famous six words in public "The Restoration of the Olympic Games" He said that the Games would ennoble and strengthen amateur sports to give them strength and lasting quality for an essential role in the world of modern education.



It was at the International Congress for the Study of the Propagation of the Principles of Amateurism held in Paris in June 1894 that the delegates led by Baron Pierre de Coubertin and associates unanimously voted to restore the Olympic Games and to create an International Olympic Committee to oversee them. De Coubertin had planned to propose Paris for the site of the first modern Olympics in 1900 but the enthusiasm and zeal of the delegates was so great that they insisted the first Games to be held in 1896. Since then these Games are held every four years.

Olympic Symbol : It comprises five rings or circles, linked together to represent the sporting friendship of all people. The rings also symbolise the continents- Europe, Asia, Africa, Australia and America. Each ring is of a different colour i.e. blue, yellow, black, green and red. The rings are meant to represent five continents viz., Africa (black), America (red), Asia (yellow), Australia (green) and Europe (Blue).

Olympic Flag: The Olympic flag, created in 1913 at the suggestion of Baron Pierre de Coubertin, was solemnly inaugurated in Paris in June 1914 but it was raised over an Olympic stadium for the first time at the Antwerp used for the Winter Games. These flags are made of white silk and contain above mentioned five interwined rings. From left to right the rings are blue, yellow, black, green and red.

Olympic Flame(Torch): It was at the Amsterdam Games in 1928 that for the first time an Olympic flame was ceremonially lighted and burned in a giant torch at the entrance of the stadium. The modern version of the flame was adopted in 1936 at the Berlin Games. The Olympic flame symbolises the continuity between the ancient and modern games. The torch, used to kindle the flame, is first lit by the sun's rays at Olympia, Greece, and then carried to the site of the Games by relay of runners. Ships and planes are used when necessary. On July 15, 1976, space age technology was used to transport the flame from one continent to another.

Olympic Motto: The Olympic motto is "Citius-Altius-Fortius" (faster, higher, stronger). Rev. Father Didon (1840-1900), headmaster of a school near Paris and a great promoter of sports in the French Catholic colleges first used the motto and had it embroidered on the pennants of his school clubs. This succinct definition of the philosophy of sport appealed to father Didon's friend, Baron Pierre de Coubertin who was responsible for the revival of the Olympic Games nearly 1,500 years after the last of the ancient Games. It was adopted at his suggestion at the International congress for the "Study and Propagation of the Principles of Amateurism" on June 23, 1894, the same day on which the restoration of the Olympic Games and the creation of the International Olympic Committee were also decided.

Olympic Prizes, Medals and Certificates: While in ancient times the Olympic heroes received a crown of olive branches for their exploits, modern Olympics Champions are rewarded with medals and certificates. The winning athlete now receives a Gold medal, the athlete in the second place is awarded a silver medal and the third placed athlete in the second place is awarded a Silver medal and the third placed athlete wins a Bronze medal. In addition, all athletes ranking from first to sixth receive a certificate. Each medal is 60 mm in diameter and 3 mm thick. The first and second place medals are made of 92.5 percent silver and the medals for the first winner is then plated with 6 gram of fine gold. Thus this medal is not full gold. The third place medal is of bronze.

Olympic Mascot: It was introduced in 1972 at the 20th Olympics Games held at Munich and since then an Olympic Mascot is selected for a particular year and venue. The following have been the Mascot so far :-

Year	Mascot	Venue
1972	Waldi (Dachshund)	Munich
1976	Amik (Beaver)	Montreal
1980	Misha (Bear)	Mascow
1984	Sam (Eagle)	Los Angeles
1988	Hodori (Cub Tiger)	Seoul
1992	Cobi (Spain)	Barcelona
1996	Lzzy (Space Creature)	Altanta
2000	Ollie, Syd and Mille (a bird, a platypuss, and a hedge hog)	Sydney

2004	Phevos and Athena (Two brother & sister inspired by Greek dolls)	Athens
2008	The Fuwa consisting of five figures: Beibei, Jing Jing, Huan Huan, Yingying and Nini	Beijing
2012	Wenlock and Mandeville , animations depicting two drops of steel from a steelworks in Bolton	London

Olympic Order Instituted in 1974, the Olympic Order in a gold, silver or bronze decoration, awarded to a person who has rendered outstanding services or displayed the Olympic ideals. Mrs Indira Gandhi was awarded this Order in 1983 by the IOC for her contribution to the organisation of the New Delhi Asiad (1982.)

The Olympic Cup: Olympic Cup Instituted in 1906 by Coubertin. Its reproduction is awarded to an institution which contributes to the development of sports in general and the Olympic cup remains at the Chateau de vivy in France.

Sir Thomas Fearnley: Cup is awarded to a club or a local sport association for remarkable achievement in the service of the Olympics. It was instituted in 1950 by Sir Thomas Fearnley, a former IOC member.

Mohammed Toher Trophy: Awarded to an amateur athlete, not necessarily an Olympian. It was instituted in 1950 by the former IOC member Mohammed Toher.

Count Alberta Banacossa Trophy: Awarded to a national Olympic Committee for outstanding work. It was instituted in 1954 by the Italian National Olympic Committee in honour of its IOC member Count Alberto Bonacossa.

Tokyo Trophy: It is given for exemplary conduct displayed by an athlete during the Games. It was instituted in 1964 and presented by Tokyo City.

Introduction of Events in the Olympics	
Events	Year
Archery	1900 at Paris (but not held from 1924-1968)
Athletics	1896 at Athens
Badminton	1992 at Barcelona
Basketball	1904 and 1928 - a demonstration event 1936 at Berlin as a medal event
Boxing	1904 at St Louis

Canoeing	1936 at Berlin (for men) 1948 at London (for women)
Cycling	1896 at Athens (but not held in 1904)
Equestrian	1900 at Paris (but not held in 1904 and 1908)
Fencing	1896 at Athens (for men) 1924 at Paris (for women)
Football	1900 at Paris (but not held in 1932)
Gymnastics	1896 at Athens
Handball	1936 at Berlin as outdoor handball 1952 at Helsinki as demonstration games 1972 at Munich as a medal event
Hockey	1908 at London (but not held in 1912 and 1924) for men 1980 at Moscow for women
Judo	1964 at Tokyo (but not held in 1968)
Modern Pentathlon	1912 at Stockholm as individual competition 1952 at Helsinki as team event
Rowing	1896 at Athens 1976 at Montreal for women
Shooting	1896 at Athens (but not held in 1904 and 1928)
Swimming	1896 at Athens for men 1908 at London, diving for men 1912 at Stockholm, swimming and diving for women 1900 at Paris (waterpolo)
Tennis	1924 at Paris (but not held later) 1988 at Seoul (returned as medal event)
Table Tennis	1988 at Seoul
Volleyball	1964 at Tokyo for men and women
Weightlifting	1896 at Athens
Wrestling	1896 at Athens (Greco-Roman) 1904 at St Louis (Free style)
Yachting	1900 at Paris

All Olympic Games details

First Olympics		Second Olympics	
Year	1896	Year	1900
Date	April 4 to 15	Date	May 20 to October 28
Place	Athens (Greece)	Place	Paris (France)
Participating Countries	13	Participating Countries	22
Players	311 (all males)	Players	1330 (11 females)
Game Competitions	42	Game Competitions	60
India's Position	Not Participated	India's Position	2 Silver medals (Won by Norman Prichard-Athletics)
Third Olympics		Fourth Olympics	
Year	1904	Year	1908
Date	July 1 to Nov 3	Date	April 27 to October 31
Place	St. Louis (America)	Place	London (Britain)
Participating Countries	12	Participating Countries	22
Players	625 (8 females)	Players	2035 (36 females)
Game Competitions	67	Game Competitions	104
India's Position	Not Participated	India's Position	Not Participated
Fifth Olympics		Sixth Olympics	
Year	1912	Year	1916
Date	May 5 to July 22	Date	Cancelled due to World War I
Place	Stockholm (Sweden)	Place	-
Participating Countries	28	Participating Countries	-
Players	2547 (57 females)	Players	-

Game Competitions	106	Game Competitions	-
India's Position	Not Participated	India's Position	-
Seventh Olympics		Eighth Olympics	
Year	1920	Year	1924
Date	April 20 to Sept 12	Date	May 4 to July 27
Place	Antwerp (Belgium)	Place	Paris (France)
Participating Countries	29	Participating Countries	44
Players	2607 (64 females)	Players	3090 (136 females)
Game Competitions	104	Game Competitions	137
India's Position	Did not win any medal	India's Position	Did not win any medal
Ninth Olympics		Tenth Olympics	
Year	1928	Year	1932
Date	May 17 to August 12	Date	July 30 to August 14
Place	Amsterdam (Holland)	Place	Los Angeles (USA)
Participating Countries	46	Participating Countries	47
Players	3014 (290 females)	Players	1408 (127 females)
Game Competitions	120	Game Competitions	124
India's Position	1 Gold medal (in Hockey)	India's Position	1 Gold medal (in Hockey)
Eleventh Olympics		Twelfth Olympics	
Year	1936	Year	1940
Date	August 1 to 16	Date	Cancelled due to World War II
Place	Berlin (Germany)	Place	Tockyo, later on Helsinki
Participating Countries	49	Participating Countries	-
Players	4066 (328 females)	Players	-
Game Competitions	142	Game Competitions	-
India's Position	1 Gold medal (in Hockey)		

		India's Position -	
Thirteenth Olympics		Fourteenth Olympics	
Year	1944	Year	1948
Date	Cancelled due to World War II	Date	July 29 to August 14
Place	London (Britain)	Place	London (Britain)
Participating Countries	-	Participating Countries	59
Players	-	Players	4099 (385 females)
Game Competitions	-	Game Competitions	138
India's Position	-	India's Position	1 Gold medal (in Hockey)
Fifteenth Olympics		Sixteenth Olympics	
Year	1952	Year	1956
Date	July 19 to August 3	Date	Nov 22 tp Dec 8
Place	Helsinki (Finland)	Place	Melbourne (Australia)
Participating Countries	69	Participating Countries	71
Players	4925 (518 females)	Players	3342 (384 females)
Game Competitions	149	Game Competitions	145
India's Position	1 Gold medal (in Hockey) 1 Bronze medal (in wrestling)	India's Position	1 Gold medal (in Hockey)
Seventeenth Olympics		Eighteenth Olympics	
Year	1960	Year	1964
Date	August 25 to September 11	Date	October 10 to 24
Place	Rome (Italy)	Place	Tokyo (Japan)
Participating Countries	83	Participating Countries	93
Players	5348 (61 females)	Players	5140 (683 females)
Game Competitions	150	Game Competitions	163

India's Position	1 Silver medal (in Hockey)	India's Position	1 Gold medal (in Hockey)
Nineteenth Olympics		Twentieth Olympics	
Year	1968	Year	1972
Date	October 12 to 27	Date	August 26 to September 10
Place	Mexico City (Mexico)	Place	Munich (Germany)
Participating Countries	112	Participating Countries	122
Players	5531 (781 females)	Players	7147 (1070 females)
Game Competitions	182	Game Competitions	195
India's Position	1 Bronze medal (in Hockey)	India's Position	1 Bronze medal (in Hockey)
Twenty First Olympics		Twenty Second Olympics	
Year	1976	Year	1980
Date	July 17 to August 1	Date	July 19 August 3
Place	Montreal (Canada)	Place	Moscow (Soviet Union)
Participating Countries	88	Participating Countries	81
Players	6152 (1261 females)	Players	5326 (1088 females)
Game Competitions	198	Game Competitions	203
India's Position	Did not win any medal At 7th position in Hockey	India's Position	1 Gold medal (in Hockey)
Twenty Third Olympics		Twenty Fourth Olympics	
Year	1984	Year	1988
Date	July 28 to August 12	Date	September 17 to October 2
Place	Los Angeles (USA)	Place	Seoul (Korea)
Participating Countries	140	Participating Countries	160
Players	7078 (1620 females)	Players	13,850 (including the officials)
Game Competitions	221		

India's Position	Did not win any medal At 5th position in Hockey	Game Competitions	237	India's Position	Did not win any medal At 6th position in Hockey
Twenty Fifth Olympics		Twenty Sixth Olympics			
Year	1992	Year	1996		
Date	July 25 to August 9	Date	July 19 to August 4		
Place	Barcelona (Spain)	Place	Atlanta (USA)		
Participating Countries	170	Participating Countries	197		
Players	12,000 (including the officials)	Players	10,700		
Game Competitions	31	Game Competitions	25		
India's Position	Did not win any medal	India's Position	Leander Paes won a Bronze medal (Lawn Tennis)		
Twenty Seventh Olympics		Twenty Eighth Olympics			
Year	2000	Year	2004		
Date	September 15 to October 1	Date	August 13 to 29		
Place	Sydney (Australia)	Place	Athens (Egypt)		
Participating Countries	199	Participating Countries	202		
Players	10,500	Players	10,500		
Game Competitions	28	Game Competitions	28		
India's Position	Karnam Malleshwari won a Bronze medal in the weightlifting (69 kg category)	India's Position	Major Rajyavardhan Singh Rathore won a Silver medal (in Shooting)		
Twenth Ninth Olympics		Thirtyth Olympics			
Year	2008	Year	2012		
Date	August 8 to August 24	Date	July 27 to August 12		
Place	Beijing (China)	Place	London		

Participating Countries	204	Participating Countries	204
Players	11,028	Players	10,820
Game Competitions	28	Game Competitions	26
India's Position	Abhinav Bindra won gold medal in rifle shooting.	India's Position	Olympic bronze medalist Sushil Kumar managed to claim another medal by winning silver in the men's freestyle wrestling.(Total 6 medals by India.)

Commonwealth Games

After Olympics, Commonwealth Games is the second largest sports festival in the world. The Games are held once in four years but only in between the Olympic years. The Games were originally known as the British Empire Games.

Some Important facts about Commonwealth Games

- The first Commonwealth Games were held in 1930 at Hamilton, Canada.
- The 10th Commonwealth Games were held at Christchurch, New Zealand in 1974 and the 15th in Victoria(Canada) in 1994, where about 3,350 athletes from a record 64 nations(including South Africa, which joined the family of Commonwealth athletes after 36 years) participated.
- Namibia also, which gained its independence in 1990, made its debut while Hong Kong made its final appearance in the Games before being ceded to China in 1997.
- XVI Commonwealth Games were held in 1998 in Kuala Lumpur (Malaysia) while XVII Commonwealth Games were hosted by UK with Manchester as their Venue.
- After the Olympics, Commonwealth Games are the second largest sports event of the world. This event is organised in between two Olympic games, which is also known as the Olympic year.
- India, for the first time, participated in the second Commonwealth games held in London in 1934.

Commonwealth Games since 1930

Year	Places	Participant Countries	Competitions	First Place	India's Medal
1930	Hamilton(Canada)	11	6	England	Not participated

1934	London(England)	16	6	England	1 Bronze Medal
1938	Sydney(Australia)	15	7	Australia	No medal
1950	Auckland(New Zealand)	12	7	Australia	Not Participated
1954	Vancouver(Canada)	24	9	England	No medal
1958	Cardiff (Britain)	35	9	England	Gold-2, Silver-1
1962	Perth (Australia)	35	9	Australia	Not Participated
1966	Kingston(Jamica)	34	9	England	Gold-3,Silver-4,Bronze-5
1970	Edinburgh(UK)	42	9	Australia	Gold-5,Silver-3
1974	Christchurch(New Zealand)	38	9	Australia	Gold-4,Silver-8,Bronze-3
1978	Edmonton(Canada)	48	10	Canada	Gold-5,Silver-4,Bronze-6
1982	Brisbane (Australia)	47	10	Australia	Gold-5,Silver-5,Bronze-3
1986	Edinburgh(UK)	26	10	England	Not Participated
1990	Auckland(New Zealand)	55	10	Australia	Gold-13,Silver-8,Bronze-7
1994	Victoria(Canada)	64	-	Australia	Gold-6,Silver-11,Bronze-10
1998	Kuala Lumpur (Malayasia)	70	16	Australia	Gold-07,Silver-10,Bronze-8
2002	Manchester(England)	72	17	Australia	Gold-32,Silver-21,Bronze-19(Third Position)
2006	Melbourne	71	-	Australia	Gold-2,Silver-17,Bronze-11(Fourth Position)
2010	Delhi (India)	71	-	Australia	Gold-, 38 Silver-27 Bronze- 36 Tolatal- 101 Second Positon
2014	Glasgow (Scotland)	Proposed			
2018	Queensland's Gold Coast City (Australia)	Proposed			

Asian Games

- The first Asian Games began on March 4, 1951 in New Delhi.
- The Asian Games Association has chosen shining sun as its symbol.
- The AGF (Asian Games Federation) adopted 'Ever Onward', given by Pt. Jawaharlal Nehru, as the motto of the Asian Games.
- The emblem of Asian Games is a 'bright full rising sun' with interlocking rings.
- The Maharaja of Patiala presented the Torch and the flag for the first Asian Games and since then they have been carried from country to country.

History: The idea of the Asian Games was first conceived by Prof. G.D. Sondhi. The suggestion for holding the Asian Games was first made in a conference of Asian Countries held in New Delhi in 1947 and Jawaharlal Nehru suggested that it be called **Asian Games**.

Background: First held as West Asian Games at New Delhi in 1934 in which India, Afghanistan, Palestine and Sri Lanka participated. In view of the enthusiasm it was decided to hold these games once in four years at mid-point between the Olympics. However, these games were abandoned during World War II.

It was Prof. Gurudutt Sondhi, a member of the IOC who encouraged by the sport-lover Maharaja Yadvendra Singh of Patiala and supported by Pandit Nehru, tried to revive these games at the Asian Relations Conference (ARC) convened by Pt Nehru at New Delhi in 1947. The Asian Athletic Federation (AAF) was formed in 1948 which decided to hold the first Athletic Championship at New Delhi in 1949. However, the plan did not materialise.

Again in February 1949, the AAF met at New Delhi where it was renamed as "Asian Games Federation" (AGF). The AGF then decided to rename the Asian Athletic Championship as "Asiatic Games". Subsequently Pt Nehru suggested that these games be called "Asian Games." The first President and Secretary of AGF were Maharaja Yadvendra Singh of Patiala and Prof. G.D. Sondhi respectively.

Motto, Emblem and Torch of Asian Games The AGF adopted 'Ever Onward' given by Pt Jawaharlal Nehru at the motto of the Asian Games. The Emblem is a bright full rising sun with interlocking rings. The Maharaja of Patiala (Yadvendra Singh) presented a Torch and a flag for the first Asian Games and since then they have been carried from country to country.

Pt Jawaharlal Nehru's Message to the Participants of the First Asian Games "Play the game in the spirit of the game."

Asian Games since 1951

Games Serial	Year	Places	Number of Countries	Number of Sports	Number of Players
1	1951	New Delhi(India)	11	6	491
2	1954	Manila(Philippines)	18	8	1021
3	1958	Tokyo(Japan)	20	13	1422
4	1962	Jakarta(Indonesia)	16	13	1545

5	1966	Bangkok(Thiland)	18	14	1945
6	1970	Bangkon(Thiland)	18	13	1752
7	1974	Tehran(Iran)	25	16	2869
8	1978	Bangkok(Thiland)	25	19	3000
9	1982	New Delhi(India)	33	21	3447
10	1986	Seoul(S.Korea)	27	25	3883
11	1990	Beijing(China)	37	27	4500
12	1994	Hiroshima(Japan)	42	34	7300
13	1998	Bangkok(Thailand)	41	38	7000
14	2002	Busan(S.Korea)	44	38	9919
15	2006	Doha(Qatar)	45	39	10000+
16	2011	Guangzhou(China)	45	42	9704+

- In the 16th Asian Games Twenty-20 Cricket will be included.
- Dance sport, Dragon boat, Roller sport and Weiqi (a form of chess) will be other new entrants into the 16th Asian Games.
- 17th(2014) Asian Games will be held in Incheon, South Korea.

Position of India in Asian Games Medal Tally

Year	Gold	Silver	Bronze	Total	Position
1951	15	18	21	54	2nd
1954	5	4	9	18	5 th
1958	5	4	4	13	7 th
1962	10	13	11	34	3 rd
1966	7	5	11	23	5 th
1970	6	9	10	25	5 th
1974	4	12	12	28	7 th
1978	11	11	6	28	5 th

1982	13	19	25	57	5 th
1986	5	9	23	37	5 th
1990	1	8	14	23	11 th
1994	4	3	15	22	8 th
1998	7	11	17	35	9 th
2002	11	12	13	36	8 th
2006	10	18	26	54	8 th

South Asian Federation (SAF) Games

The SAF games was first held in 1984 at Kathmandu, Nepal. The seven participating countries are India, Pakistan, Sri Lanka, Bangladesh, Nepal, Bhutan and Maldives. The motto of SAF games is "*Peace, Prosperity and Progress*". The games year 1986 edition was not staged as it was a year of Commonwealth and Asian Games.

Year	Venue	Ranking Ist/IIInd/IIIrd
1984	Kathmandu(Nepal)	India/Sri Lanka/Pakistan
1984	Dhaka (Bangladesh)	India/Pakistan/Bangladesh
1989	Islamabad (Pakistan)	India/Pakistan/Sri Lanka
1991	Colombo (Sri Lanka)	India/Sri Lanka/Pakistan
1993	Dhaka (Bangladesh)	India/Pakistan/Sri Lanka
1995	Chennai (India)	India/Sri Lanka/Pakistan
1999	Kathmandu (Nepal)	India/Nepal/Sri Lanka
2004	Islamabad	India/Pakistan/Sri Lanka
2006	Colombo (Sri Lanka)	India/Pakistan/Sri Lanka
2010	Dhaka (Bnagladesh)	India
2013	New Dehli (India)	India
2014	Kathmandu (Nepal)	-
2016	Hambantota (Srilanka)	-

Some
Important
Sports

Terminology

Some Important Sports Terminology and Measurement

Cricket	Some Important Measurement in Cricket	
	Length of Pitch	22 yards (20.11 meters)
	Length of Crease	1.22 - 1.83 meters (4 ft)
	Weight of Ball	155 to 163 gram
	Circumference of the Ball	22.4-22.9 cm (9 inch)
	Lenght of Bat	96.5 cm (38 inch)
	Width of Bat	10.8 cm (4.25 inch)
	Length of the Stumps	71.1 cm (28 inch)
	Length of Bells	11.1 cm (each bail)
	Some Important Terminology in Cricket	
Played on, Appeal, Bye, Leg Bye, Power Play, Follow on, Dusara, Beamer, Hooper Shot, Lost Ball, Duck worth Luis, Retired Hurt, Chinaman, Batsman, Bowler, Wicket Keeper, Fielder, LBW (Leg Before Wicket), Catch, Hit Wicket, Throw, Maiden over, Four, Sixer, Wide, Swing, Stroke, Cover, Mid on, Mid off, Mid Wicket, over the wicket, round the wicket, Leg spinner, Off spinner, Over throw, Over slip, Gulley, Cover point, Long off, Long on, Third man, Short pitch, Hook, Dead ball, Run out, Popping crease, Pitch, Bouncer (or Bumper), Full toss, Yorker, Yorked, Googley, Wicket Maiden, Snick, Duck, Hat-Trick, Rubber, The Ashes, Scoring a Ton etc.		
Badminton	Some Important Measurement in Badminton	
	Length of court	44 fee
	Width of the court	20 feet (for doubles) and 17 feet (for singles)
	Height of the net	5 feet
	Weight of Shuttle cock	4.74 to 5.50 gram
	Overall length of the Racket	680 mm (2.5 ft) maximum
	Overall width of the Racket	230 mm (9 inches) maximum
	Overall length of the Racket head	290 mm (11.5 inches) maximum
	Weight of the racket	85 to 140 grams
	Some Important Terminology in Badminton	
Badminton court, End, Trans Lines, Back gallery, Service Court, Let, Forward stroke, Backward Stroke, Toss or Lob, Clear, Smash, Net Strokes, Rally, Setting, First hand or Second hand, Side out, Base of operation, Rotation, Long service, Net Fault, Double fault,		

	Foot fault, Service break, Match Point, Set point, High service, Cross shot, Service change, Drive, Drop shot, Duce, Advance etc.	
Basketball	Some important measurements in Basketball	
	Length of the court	28 meter
	Width of the court	15 meter
	Height of the basket from ground	3.05 meter
	Weight of the ball	600 to 650 grams
	Some Important Terminology in Basketball	
	Dribbling, Front court, Second dribble, Two count stop, Travelling or shifting, Pivoting, Held ball, Jump ball, Violation, Foul, Feinting or Dodging, Shooting, Set shot, Ring, Guard point, Dead ball, Basket Rudnick, Hook Pass, Goal, Centre line, Free throw line, Onstead, Fast break, Lay-up shot, Man to man defence, Pack, Three point, Turn over, Assist, Throw, Goal Tending, Steal, Tap etc.	
Football	Some Important Measurement in Football	
	Length of the ground (Field)	91 to 120 meters
	Width of the ground (Field)	45 to 91 meters
	Weight of the ball	396 to 453 grams
	cicrumference of the ball	98 to 71 cm
	Some Important Terminology in Football	
	Abbey, Dribble, Extra time, Full back, Half back, Striker, Centre, Forward, Penalty kick, Free kick, Scissor kick, Goal kick, Direct kick, Corner kick, Referee, Tie breaker, Hat trick, Hand ball, Sweeper, Back, Throw in, Hand-ball (Fault), Touch line, Place Kick, or Kick off, Direct Free Kick, Indirect Free Kick, Tackle, Off side, Sliding Tackle, Drop Ball, Sudden death, Penalty shoot out etc.	
Hockey	Some Important Measurement in Hockey	
	No. of Players	11 players in each team
	Length of Playing field	91.44 meters
	Width of the Playing field	50 to 55 meters
	Weight of the Ball	155 to 163 grams
	Circumference of the Ball	223- 224 cm

	Colour of the Ball	White
	Weight of the Hockey (Stick)	280 grams (max)
	Some Important Terminology in Hockey Advantage, Back-stick, Bully, Carry, Dribble, Dodge, Goal line, Green Card, Flick, Free hit, Face of Stick, Jab Stroke, Lung Stroke, Melle, Off side, Penalty shoot out, Short Corner, Striking circle or Shooting circle, Square pass, Tackling, Through pass, Under cutting, Stick, Penalty stroke, Scoop, Side line, Tie breaker, Penalty, Under cutting, Volley, Centre forward, Roll in, Push in, Shooting, Half volley, Full back etc.	
Lawn Tennis	Some Important Measurement in Lawn Tennis	
	Length of the court	78 feet or 23.77 m (singles)
	Width of the court	27 feet or 8.23 m (singles), 36 feet or 10.97 m (doubles)
	Height of the net	3 feet (0.914 m)
	Weight of the ball	56.0 to 59.4 gram
	Maximum length of the frame of the racket	32 inches (81.28 cm)
	Colour of the ball	White or Yellow
	Some Important Terminology in Lawn Tennis Ace, Advantage, A let, Back hand drive, Deuce, Chip Shot, Volley, Half Volley, Let fault, Foot fault, Double Fault, Smash, Service, Grand Slam, Singles sticks, Love, Slice.	
Table Tennis	Some Important Measurement in Table Tennis	
	Length of the table	2.74 metre (9 feet)
	Width of the table	1.52 metre (5 feet)
	Height of the table	76 cm
	Weight of the ball	2.4 to 2.53 gram
	Diameter of the ball	37.2 to 38.2 mm
	Colour of the ball	White or Yellow
	Some Important Terminology in Table Tennis	

	Foil, End line, Late control, Flat hit, Block stroke, Service, Penholder grip, Back spin, Centre line, Half Court, Side spin, Swing stroke, Push Stroke, Rally, Let, Reverse, Top Spin, Drop shot, Lob, Chopped return, Counter hitting etc.	
Volleyball	Some Important Measurement in Volleyball	
	Length of Court	18 meter
	Width of Court	9 meter
	Weight of ball	250 -260 grams
	Circumference of the ball	65-67 cm
	Net	1m (+/- 3cm) wide and 9.5 m long
	Net's height	2.43 m (for men) and 2.24 m (for women)
	Ball Internal Pressure	0.40 to 0.45 Kg/cm
	Some Important Terminology in Volleyball	
	Antennae, Attack hit, Back zone players, Dribbling, Libero, Front Zone players, Blocking, Smash, Rotation, Boosting, Net fault, Volley Pass, Forearm pass, Service, Hook serve, Set up, Referee etc.	
Polo	Some Important Measurement in Polo	
	Length of the field	300 yards,
	Width of the field	150 yards
	Distance between the goals	250 yards
	Distance between the goal points	8 yards
	Some Important Terminology in Polo	
	Bunker, Chuker, Mallet etc	
Wrestling	Some Important Measurement in Wrestling	
	In International Competitions there is a circular area with 9 metre diameter with circle in the centre of 1 metre diameter. Competitions played on a mattress, the mattress is 1:1 metre diameter high	
	Some Important Terminology in Wrestling	
	Heave, Half, Nelson, Rebuts, Hold sager etc	

Chess	Some Important Measurement in Chess	
	The number of squares on a chessboard	64
	Colour of the squares	White and Black
	Some Important Terminology in Chess	
	Bishop, Gambit, Checkmate, Stalemate, Pawn, Grand-master etc.	
Golf	Some Important Measurement in Golf	
	Diameter of the hole	4 inches
	Some Important Terminology in Golf	
	Bogie, Fore some, Stymie, T, Put hole, Nib lick, Caddy, Limns, Iron, Putting, The green, Bunker etc.	
Water Polo	Some Important Measurement in Water Polo	
	The Length and width of the field	30 X 20 yards
	Some Important Terminology in Water Polo	
	2 metre line, 4 metre line, Goal line, Caps, Personal, Fault, Ball under etc.	
Baseball	Some Important Measurement in Baseball	
	The distance of each base	90 feet
	The distance of the base along with its hypotenuse	127 feet
	Some Important Terminology in Baseball	
	Home, Diamond, Pitcher, Put out, Home run, Strike, Ant rubber etc.	
Billiards	Some Important Terminology in Billiards	
	Cue, Jigger, Pot, Break Pot, In luck, In off, Cans, Bolting, Hazard, Long etc.	
Rifle Shooting	Some Important Terminology in Rifle Shooting	
	Target, Bulls eye, Muzzle flub etc	
Kho-Kho	Some Important Terminology in Kho-Kho	

	Chasers, Active Chaser, Runners, Diving, Taking a direction, To recede, Tapping, Trapping, Dupe turn, Late Kho, Giving Kho, Fake Kho etc.	
Swimming	Some Important Terminology in Swimming	
	Crawl, Breast stroke, Spring Board, Twist, Butter fly etc.	
Boxing	Some Important Measurement in Boxing	
	Length and width of the ring	Minimum 4.9X4.9 m square and maximum 6.10X6.10 m square
	Some Important Terminology in Boxing	
	Punch, Upper cut, Round, Jab, Hook, Knock down, Knock out, Hitting willow, Ring, Break, Bell, Belt, Blow, Bounce, Bout etc.	

Wrestling

Some important measurement in Wrestling	
In International Competitions there is a circular area with 9 metre diameter with circle in the centre of 1 metre diameter. Competitions played on a mattress, the mattress is 1:1 metre diameter high	

Some important terminology in Wrestling :- Heave, Half, Nelson, Rebuts, Hold sager etc

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The number of squares on a chessboard	64
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The Length and width of the field	30 X 20 yards

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The distance of each base	90 feet
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Boxing

Some important measurement in Boxing	
Length and width of the ring	Minimum 4.9X4.9 m square and maximum 6.10X6.10 m square

Some important terminology in Boxing :- Punch, Upper cut, Round, Jab, Hook, Knock down, Knock out, Hitting willow, Ring, Break, Bell, Belt, Blow, Bounce, Bout etc.

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Rifle Shooting Some important terminology in Rifle Shooting :- Target, Bulls eye, Muzzle flub etc

Polo

Some important measurement in Polo	
Length of the field	300 yards,
Width of the field	150 yards
Distance between the goals	250 yards
Distance between the goal points	8 yards

Some important terminology in Polo :- Bunker, Chuker, Mallet etc

Some Important terminologies of Cricket:- played on, Appeal, Bye, Leg Bye, Power Play, Follow on, Dusra, Beamer, Hooper Shot, Lost Ball, Duck worth Luis, Retired Hurt, Chinaman, Batsman, Bowler, Wicket Keeper, Fielder, LBW (Leg Before Wicket), Catch, Hit Wicket, Throw, Maiden over, Four, Sixer, Wide, Swing, Stroke, Cover, Mid on, Mid off, Mid Wicket, over the wicket, round the wicket, Leg spinner, Off spinner, Over throw, Over slip, Gulley, Cover point, Long off, Long on, Third man, Short pitch, Hook, Dead ball, Run out, Popping crease, Pitch, Bouncer (or Bumper), Full toss, Yorker, Yorked, Googley, Wicket Maiden, Snick, Duck, Hat-Trick, Rubber, The Ashes, Scoring a Ton etc.

Some important terminology in Badminton :- Badminton court, End, Trans Lines, Back gallery, Service Court, Let, Forward stroke, Backward Stroke, Toss or Lob, Clear, Smash, Net Strokes, Rally, Setting, First hand or Second hand, Side out, Base of operation, Rotation, Long service, Net Fault, Double fault, Foot fault, Service break, Match Point, Set point, High service, Cross shot, Service change, Drive, Drop shot, Duce, Advance etc.

Some Important Terminology in Football :- Abbey, Dribble, Extra time, Full back, Half back, Striker, Centre, Forward, Penalty kick, Free kick, Scissor kick, Goal kick, Direct kick, Corner kick, Referee, Tie breaker, Hat trick, Hand ball, Sweeper, Back, Throw in, Hand-ball (Fault), Touch line, Place Kick, or Kick off, Direct Free Kick, Indirect Free Kick, Tackle, Off side, Sliding Tackle, Drop Ball, Sudden death, Penalty shoot out etc.

Some important terminology in Basketball :- Dribbling, Front court, Second dribble, Two count stop, Travelling or shifting, Pivoting, Held ball, Jump ball, Violation, Foul, Feinting or Dodging, Shooting, Set shot, Ring, Guard point, Dead ball, Basket Rudnick, Hook Pass, Goal, Centre line, Free throw line, Onstead, Fast break, Lay-up shot, Man to man defence, Pack, Three point, Turn over, Assist, Throw, Goal Tending, Steal, Tap etc.

Some important Terminology in Hockey :- Advantage, Back-stick, Bully, Carry, Dribble, Dodge, Goal line, Green Card, Flick, Free hit, Face of Stick, Jab Stroke, Lung Stroke, Melle, Off side, Penalty shoot out, Short Corner, Striking circle or Shooting circle, Square pass, Tackling, Through pass, Under cutting, Stick, Penalty stroke, Scoop, Side line, Tie breaker, Penalty, Under cutting, Volley, Centre forward, Roll in, Push in, Shooting, Half volley, Full back etc.

Some important terminology in Lawn Tennis :- Ace, Advantage, A let, Back hand drive, Deuce, Chip Shot, Volley, Half Volley, Let fault, Foot fault, Double Fault, Smash, Service, Grand Slam, Singles sticks, Love, Slice.

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Some important terminology in Volleyball :- Antennae, Attack hit, Back zone players, Dribbling, Libero, Front Zone players, Blocking, Smash, Rotation, Boosting, Net fault, Volley Pass, Forearm pass, Service, Hook serve, Set up, Referee etc.

Economy of India

Indian Economy is **Twelfth largest** in the world and **fourth largest** by purchasing power parity. In the 21st century, India is an emerging economic power having vast human and natural resources.

Economic Growth: Economic growth has been defined as "an increase in real terms of the output of goods and services that is sustained over a long period of time, measured in terms of value added". Economic growth is a dynamic concept and refers to continuous increase in output.

Factors in Economic Growth: The four factors contributing to growth are

1. human resources (labour supply, education, discipline, motivation)
2. national resources (land, minerals, fuels, environmental quality)
3. capital formation (machines, factories, roads)
4. technology (science, engineering, management, entrepreneurship)

Growth and Development	
While the term economic growth referees to increases over time in a country's real output of goods and services i.e. product per capita, the term economic development, in contrast, is more comprehensive. It implies progressive changes in the socio-economic structure. Economic growth and development frequently used interchangeably in economic literatures actually are not identical technically.	
Difference Between Economic Growth and Economic Development	
Economic Growth	Economic Development
1. It indicates quantitative improvement in the economic progress of a country 2. It shows growth in natural income and per capita income over time 3. A country may grow but it may not develop	1. It indicates qualitative improvement in the economic progress of a country 2. It shows not only a sustained increase in national and per capita income but also qualitative changes which leads to higher standard of living. 3. Economic development includes the notion of economic growth.
Economic Growth = Size of output (A Quantitative aspect)	
Economic Development = Size of output + Welfare (A Qualitative aspect)	

Gross National Happiness (GNH) : The concept of gross national happiness has been introduced by king of Bhutan, Jigme Singya Wang Chuck, a tiny kingdom on the northern borders of India. The GNH aims to ensure that prosperity is shared across protecting the environment and maintaining a responsive the word happiness, more like what the signers of the Declaration of Independence had in mind when they included the "pursuit of happiness" as an inalienable right equal to liberty and life itself. The index is designed to challenge the well-established indices of countries development. HDI and GDP which are seen as not taking sustainability into account.

India is the 90th happiest country in the world, behind Bhutan(13), China(31), Sri Lanka(13) and Bangladesh(41). It is ahead of Pakistan(112) and Russia(172).

Seven of the top 10 happiest countries are from western democracies, while countries in Asia, known for their strong cultural values, family ties and collective identities surprisingly scored low-China(31), Japan(95) and Thailand(32)

GNH Ranking		
Ranking	Country	HPI
1	Vanuatu	68.21
2	Colombia	67.24
3	Costa Rica	66.00
4	Dominica	64.55
5	Panama	63.54
6	Cuba	61.86
7	Honduras	61.75
8	Guatemala	61.69
9	El Salvador	61.66
10	St. Vincent of the Grenading	61.37
90	India	42.46

Millennium Development Goals to be Achieved by 2015
▪ Achieve universal primary education ▪ Reduce child mortality ▪ Improve maternal health ▪ Combat HIV/AIDS, Malaria and other diseases ▪ Ensure environmental sustainability ▪ Develop a global patnership for development ▪ Eliminate gender disparities in primary and secondary education, preferably by 2005, and in all levels of education by 2015 ▪ Halve the proportion of the people suffering from Hunger

Five Year Plans

First plan(1951 to 56)	• It was based on Harrod-Damor model • Community development programme was launched in 1952 • Emphasised technical, price stability, power and transport • It was more than a success, because of good are blessed in the last two years
Second plan(1956 to 61)	• Also called Mahalanobis plan after its chief architect.

	• Its objective was rapid industrialisation • Advocated use imports which led to emptying of funds leading to foreign loans. It shifted basic emphasis from agriculture to industry far too soon. During this plan, price level increased by 30% against a decline of 13% during the first plan
Third plan(1961 to 66)	• At its conception time, it was felt that Indian economy has entered its takeoff stage. Therefore, it was to make India a self-reliant and self-generating economy. • Also, it was realised from the experience of first two plans that agriculture could be given the top priority to suffice the requirements of export and industry. • Complete failure due to unforeseen misfortunes viz. Chinese aggression(1962), Indo Pak war (1962) , Indo Pak war (1965) , Severe drought in 100 years (1965 to 66)
Three annual plans(1966 to 69)	• Plan holiday for three years. The prevailing crisis in agriculture and serious food shortage necessitated the emphasis on agriculture during the annual plans. • During these plans a whole new agriculture strategy involving widespread distribution of highly-yielding varieties of seeds, the extensive use of fertilisers, exploitation of irrigation potential and soil conservation was put into action to tide over the crisis in agriculture production. • During the annual plans, the economy basically absorbed the shocks given during the third plan, making way for a planned growth
Fourth plan(1969 to 74)	• Main emphasis on agriculture's growth rate so that chain reaction can start • Fared well in the first two years with record production, last three years failure caused by poor monsoon. • Had to tackle the influx of Bangladeshi refugees before and after 1971 Indo Pak war
Fifth plan (1974 to 79)	• the fifth plan was revised and launched by D.D Dhar proposed to achieve two main objectives viz <i>removal of poverty</i>(Garibi Hatao) and <i>attainment of self-reliance</i>, through promotion of high rate, better distribution of income and a very significant growth in the domestic rate of saving. • the plan was terminated in 1978 (instead of 1979) when Janata government came to the power.
Rolling plan(1978 to 80)	• there were two sixth plans. One by Janata government.(For 78 to 79) which was in operation for two years only and the other by Congress government when it returned to power in 1980 • the Janata government plan is also called Rolling plan
Sixth plan(1980 to 85)	• Objectives: Increase in national income, modernisation of technology, ensuring continuous decrease in poverty and unemployment, population control through family planning etc.

Seventh plan(1985 to 90)	- the seventh plan emphasized policies and programmes which aimed at rapid growth in food grains production, increased employment opportunities and productivity within the framework of basic tenants of planning. - It was a great success, the economy recorded 6% growth rate against the targeted 5%
Eighth plan(1992 to 97)	- The eighth plan was postponed by two years because of political upheavals at the Centre and it was launched after a worsening balance of payment position and inflation during 1990-91 - the plan undertook various drastic policy measures to combat the bad economic situation and to undertake an annual average growth of 5.6% - some of the main economic performance during eighth plan period were rapid economic growth, high growth in exports and imports, improvement in trade and current account deficit.
Ninth plan(1997 to 2002)	Tt was developed in the context of four important dimensions: quality of life, generation of productive employment, a regional balance and self-reliance.
Tenth plan (2002 to 2007)	Its objectives included achieving the growth rate of 8%, reduction of poverty ratio to 20% by 2007 and 210% by 2012, universal access to primary education by 2007, increase in literacy rate to 72% within the plan period and to 80% by 2012
Eleventh plan(2007 to 2012)	- Accelerate growth rate of GDP from 8% to 10% and then maintain at 10% in the 12th plan in order to double per capita income by 2016-17 - Increase agricultural GDP growth rate of 4% per year to ensure a broader spread of benefits. - Reduce drop out rates of children from elementary school from 52.2% in 2003-04 to 20% by 2011-12 - Increase the literacy rate for persons of faith seven years or more to 85% - reduce infant mortality rate(MR) 28 and maternal mortality ratio(MMR) to 1 part 1000 live births. - raise the sex ratio for age group 0-6 to 935 by 2011-12 and to 950 by 2016-17 - Ensure electricity connection to all village and BPL households by 2009 and the round-the-clock power by the end of the plan - increase forest and free cover by the five percentage points

Plan	Target	Actual
First Plan(1951-56)	2.9%	3.6%
Second Plan(1956-61)	4.5%	4.3%
Third Plan(1961-66)	5.6%	2.8%

Fourth Plan(1969-74)	5.7%	3.3%
Fifth Plan(1974-79)	4.4%	4.8%
Sixth Plan(1980-85)	5.2%	6.0%
Seventh Plan(1985-90)	5.0%	6.0%
Eighth Plan(1992-97)	5.6%	6.8%
Ninth Plan(1997-2002)	6.5%	5.4%
Tenth Plan(2002-2007)	8.0%	
Eleventh Plan(2007-2012)	9.0%	

Poverty and unemployment

- Poverty line is defined on the basis of nutritional standards. The list calorie intake is fixed at 2400 Cal/person/day for rural area and 2100 Cal/person/day for urban area. The people below these nutritional is an income standards are considered to be below the poverty line(BPL).
- Presently 24.4% population in India is below poverty line. It is 24.36% in ruler India and 24.50% in urban areas. National Sample survey Organisation(NSSO) conducts this survey.
- Unemployment simply means a situation when able and willing people are not getting jobs as per their own capabilities

Green Revolution

- Indian Green Revolution is associated with the use of HYVS(highly yielding variety seeds), chemical fertilisers and new technology which led to a sharp rise in agriculture production during the middle of 1960.
- The term "Green Revolution" was given by American scientists, Dr William Gande.
- During the middle of 60s, Indian agriculture scientist developed a number of new highly yielding varieties of wheat by processing wheat seeds imported from Mexico. A similar improvement in variety of rice was also observed.
- The credit of this goes not only to Nobel Laureate Dr. Norman Borlaug, but also to Dr MS Swaminathan

Revolution	Area
Yellow revolution	oil seeds
White revolution	Milk
Blue Revolution	Fish

Pink revolution	Shrimp/Meat
Brown Revolution	nonconventional energy resources
Grey revolution	Wool
Golden Revolution	Horticulture

Important industries of India

1. Iron and steel industry

- First steel industry at Kulti, Near Jharia, West Bengal - Bengal iron works company in 1870
- First large scale steel plant TISCO at Jamshedpur in 1907 followed by IISCO at Burnpur in 1919. Both belonged to private sector
- The first public sector unit was "Vishveshvaraya Iron and Steel works" at Bhadravati

2. Public sector steel plants

- Russian government -

Location	Assistance
Rourkela(Orrisa)	Germany
Bhilai(MP)	Russian government
Durgapur(WB)	British government
Bokaro(Jharkhand)	
Burnpur(WB)	Acquired from private sector in 1976
Vishakhapatnam(AP)	Russian government
Salem(Tamil Nadu)	-
Vijai Nagar(Karnataka)	
Bhadravati(Karnataka)	nationalisation of Vishveshvarayya Iron and Steel Ltd(owned by Central and State government)

- all these are managed by SAIL(at present all important steel plants except TISCO, are under public sector)
- steel authority of India Ltd(SAIL) was established in 1974 and was made responsible for the development of the steel industry
- $\leq \text{""} \text{li} \text{""} \geq$
- Presently India is the eighth largest steel producing country in the world.

3. Jute industry

- Jute industry is an important industry for a country like India, because not only it earns foreign exchange but also provides substantial employment opportunities in agriculture and industrial sectors
 - Its first modernised industrial unit was established at Reshra in West Bengal in 1855
 - The jute industry in the country is traditionally export oriented. India ranks number one in the raw jute and jute goods production and number two in export of jute goods in the world.
4. **Cotton and textile industry**
- Oldest industry of India, and employees largest number of workers
 - It is the largest organised and broad-based industry which accounts for 4% of GDP, 20% of manufacturing value-added and one third of total export earnings.
 - The first Indian modernised cotton cloth mill was established in 1818 at Fort Gloaster near Calcutta but this mill was not successful. The second mill named "Mumbai's spinning and weaving Co." Was established in 1854 at Bombay by KGN Daber.
5. **Sugar industry**
- Sugar industry is the second largest industry after cotton textile industry among agriculture-based industries in India.
 - India is now the largest producer and consumer of sugar in the world. Maharashtra contributes over one third of the total sugar output, followed closely by Uttar Pradesh.
6. **Fertiliser industry**
- India is the third largest producer of nitrogenous fertilisers in the world
7. **Paper industry**
- The first mechanised paper mill was set up in 1812 at Serampur in West Bengal.
 - The paper industry in India is ranked among the 15 top global paper industries.
8. **Silk industry**
- India is the second-largest(first being China) country in the world in producing natural silk. At present, India produces about 16% silk of the world.
 - India and joys that distinction of being the only country producing all the five known commercial varieties of silk viz Mulberry, Tropical Tussar, Oak Tussar, Eri and Muga.
9. **Petroleum and natural gas**
- First successful Oilwell was dug in India in 1889 at Digboi, Assam.
 - at present a number of regions having oil reserves have been identified and oil is being extracted in these regions
 - for exploration purpose , **Oil and Natural Gas Commission (ONGC)** was established in 1956 at Dehradun, Uttarakhand

Biggest, Highest and Largest in India

Highest Award	Bharat Ratna
Highest Gallantry Award	Param Vir Chakra
Longest River in India	The Ganges

Longest Tributary river of India	Yamuna
Largest Lake	Wular Lake, Kashmir
Largest Lake (Saline Water)	Chilka Lake, Orissa
Largest Man-Made Lake	Govind Vallabh Pant Sagar (Rihand Dam)
Largest Fresh Water Lake	Kolleru Lake (Andhra Pradesh)
Highest Lake	Devtal Lake, Gadhwal (Uttarakhand)
Highest Lake	Devatal (Gharhwal)
Highest Peak	Karkoram-2 of K-2(8,611 meters) Highest Peak in the world is Mount Everest which is in Nepal
Largest Populated City	Mumbai
Largest State(Area)	Rajasthan
Largest State(Population)	Uttar Pradesh
Highest rainfall	Cherrapunhi (426 inches per annum)
Highest Waterfall	Nohkalikai Falls (335 meters, 1100 ft high) in Shora
State wise largest area under forest	Madhya Pradesh
Largest Delta	Sunderbans Delta
Largest River without Delta	Narmada and Tapi
Longest Cantilever Span bridge	Howrah Bridge
Longest River Bridge	Mahatma Gandhi Setu, Patna
Biggest Cave temple	Ellora
Longest Road	Grand Trunk Road
Highest Road	Road at Khardungla,(in Leh-Manali Sector)
Biggest Mosque	Jama Masjid at Delhi
Highest Gateway	Buland Darwaza at Fatehpur Sikri (53.6 meters high)
Tallest Statue	Statue of Gomateshwar (17 meters high In Karnataka)
Largest Public Sector Bank	State Bank of India
Longest Canal	Indira Gandhi Canal or Rajasthan Canal (Rajasthan)
Largest Dome	Gol Gumbaz at Bijapur
Largest Zoo	Zoological Garden at Alipur (Kolkata)

Largest Museum	India Museum at Kolkata
Longest Dam	Hirakud Dam (Orissa)
Highest Dam	Tehri Dam (260 meters , 850 ft)
Highest Tower	Kutab Minar at Delhi (88.4 meters high)
Largest Desert	Thar (Rajasthan)
Largest District	Kutch district
Fastest Train	Shatabadi Express running between New Delhi and Bhopal
State with longest coastline	Gujarat
State with longest coastline of South India	Andhra Pradesh
Longest Electric Railway Line	From Delhi to Kolkata via Patna
Longest Railway Route	From Assam to Kanyakumari
Longest Railway Platform	Kharagpur (W. Bengal)
Highest Railway Station	Ghum (W. Bengal)
Longest Platform	Kharagpur (West Bengal) 833 meters in Length. It is also the longest railway station in world
Longest Tunnel	Jawahar tunnel (Jammu & Kashmir)
Longest Highway	NH-44 (NH-7) which turns from Varanasi to Kanyakumari
Smallest State (Population)	Sikkim
Smallest State (Area)	Goa
Largest State (Area)	Rajasthan
Largest State (Population)	Uttar Pradesh
Densest Populated State	West Bengal
Largest Cave	Amarnath (J&K)
Largest Cave Temple	Kailash Temple, Ellora (Maharashtra)
Largest Animal Fair	Sonepur (Bihar)
Largest Auditorium	Sri Shanmukhanand Hall (Mumbai)
Biggest Hotel	Oberai-Sheraton (Mumbai)
Largest Port	Mumbai
Largest Gurudwara	Golden Temple, Amritsar

Deepest River Valley	Bhagirathi & Alaknanda
Largest Church	Saint Cathedral (Goa)
Oldest Church	St. Thomas Church at Palayar, Trichur (Kerala)
Longest River	Ganga (2640 km long)
Longest Beach	Marina Beach, Chennai
Highest Battle Field	Siachin Glacier
Highest Airport	Leh (Laddakh)
Biggest Stadium	Yuva Bharti (Salt Lake) Stadium, Kolkata
Largest River Island	Majuli (Brahmaputra River, Asom)
Largest Planetarium	Birla Planetarium (Kolkata)
Sambhar lake	Largest inland salt lake

Smallest Biggest in World

Geographical Facts:-

Largest Continent	Asia, 17,212,2000 square miles
Smallest Continent	Australia, 312,2000 square miles
Highest Mountain	Mount Everest, Himalayan Mountains, Nepal-Tibet, 29,035 feet above sea level
Lowest Point on land	The Dead Sea, Israel-Jordan, water surface 1,349 feet below sea level
Deepest Underwater Trench	Marina Trench, 200 miles southwest of Guam in the Pacific Ocean, 36,198 feet below the ocean surface
Largest Sea	The Mediterranean Sea, 1,144,800 square miles
Highest Lake	The Highest navigable lake is Lake Titicaca in Peru, 12,500 feet above sea level
Lowest Lake	The Dead Sea, Israel-Jordan, surface of water 1,349 feet below sea level
Largest Lake	Caspian Sea, 152,239 square miles
Largest Freshwater Lake	Lake Superior, US-Canada, 31,820 square miles
Deepest Ocean	Pacific Ocean, average depth 13,215 feet
Largest Ocean	Pacific Ocean, 60,060,700 square miles

Smallest Ocean	Arctic Ocean, 5,427,000 square miles
Largest Gulf	Gulf of Mexico, 615,000 square miles
Bay	The Bay of Bengal, 1,300,000 square miles
Largest Island	Greenland, 839,999 square miles
Largest Peninsula	Arabia, 1,250,000 square miles
Largest Archipelago	Indonesia, 3,500-mile stretch of 17,000 islands
Largest Gorge	Grand Canyon, Colorado River, Arizona, US, 217 miles long, 4-18 miles wide, 1 mile deep
Deepest Gorge	Hells Canyon, Snake River, Idaho, 7,900 feet deep
Longest Mountain Range	The Andes of South America, 5,000 miles
Longest River	The Nile, Africa, 4,180 miles
Shortest River	The Roe, Montana, US, 200 feet long
Largest River	The Amazon, South America, basin of 2,500,000 square miles
Longest Estuary	Ob River, Russia, 550 miles long, up to 50 miles wide
Largest Lagoon	Lagoa dos Patos, Brazil, 150 miles long, 4,500 square miles
Largest Waterfall	Angel Falls, Venezuela, 3,212 feet high

Oceans of the World (by Size)

- Pacific (155,557,000 sq km)
- Atlantic (76,762,000 sq km)
- Indian (68,556,000 sq km)
- Southern (20,327,000 sq km)
- Arctic (14,056,000 sq km)

Ocean's Greatest Depths

- Mariana Trench, Pacific Ocean 35,827 ft
- Puerto Rico Trench, Atlantic Ocean 30,246 ft
- Java Trench, Indian Ocean 24,460 ft
- Arctic Basin, Arctic Ocean, 18,456 ft

Major Seas (by Size)

- South China (2,974,600 sq km)
- Caribbean (2,515,900 sq km)
- Mediterranean (2,510,000 sq km)
- Bering (2,261,100 sq km)
- Gulf of Mexico (1,507,600 sq km)
- Arabian Sea (1,498,320 sq km)
- Sea of Okhotsk (1,392,100 sq km)
- Sea of Japan (East Sea - 1,012,900 sq km)
- Hudson Bay (730,100 sq km)
- East China (664,600 sq km)
- Andaman (564,900 sq km)
- Black (507,900 sq km)
- Red (453,000 sq km)

Major Rivers (by length)

- Nile, Africa (6,825 km)
- Amazon, South America (6,437 km)
- Chang Jiang (Yangtze), Asia (6,380 km)
- Mississippi, North America (5,971 km)
- Yenisey-Angara, Asia (5,536 km)
- Huang(Yello), Asia (5,464 km)
- Ob-Irtysh, Asia (5,410 km)
- Amur, Asia (4,416 km)
- Lena, Asia (4,400 km)
- Congo, Africa (4,370 km)
- Mackenzie-Peace, North America (4,241 km)
- Mekong, Asia (4,184 km)
- Niger, Africa (4,171 km)

Major Lakes (by Size)

- Caspian Sea, Asia-Europe (371,000 sq km)
- Superior, North America (82,100 sq km)
- Victoria, Africa (69,500 sq km)
- Huron, North America (59,600 sq km)
- Michigan, North America (57,800 sq km)
- Tanganyika, Africa (32,900 sq km)
- Baikal, Asia (31,500 sq km)
- Great Bear, North America (31,300 sq km)

- Aral Sea, Asia (30,700 sq km)
- Malawi, Africa (28,900 sq km)
- Great Slave, Canada (28,568 sq km)
- Erie, North America (25,667 sq km)
- Winnipeg, Canada (24,387 sq km)
- Ontario, North America (19,529 sq km)

Deepest Lake (by Greatest Depth)

- Baikal, Russian Fed. (5,315 ft)
- Tanganyika, Africa (4,800 ft)
- Caspian Sea, Asia-Europe (3,363 ft)
- Malawi or Nyasa, Africa (2,317 ft)
- Issyk-Kul, Kyrgyzstan (2,303 ft)

Tallest Mountains (on each Continent)

- Mount Everest 8859 m - Asia
- Aconcagua 6959 m - S. America
- Mount McKinley 6194 m - N. America
- Mount Kilimanjaro 5963 m - Africa
- Mount Elbrus 5633 m - Europe
- Puncak Jaya 4884 m - Oceania
- Vinson Massif 4897 m - Antarctica

History of India

India's history and culture is ancient and dynamic, spanning back to the beginning of human civilization.

Indian History in Short:-

The History of India begins with the Indus Valley Civilization, which spread through in the north-western part of the Indian subcontinent, from 3300 BC to 1300 BC. This Bronze Age civilization collapsed at the beginning of the second millennium BC and was followed by the Iron Age Vedic period, which extended over much of the Indo-Gangetic plains and which witnessed the rise of kingdoms known as the Mahajanapadas.



In the fifth century, large parts of India were united under Ashoka. He also converted to Buddhism, and it is in his reign that Buddhism spread to other parts of the Asia. In the reign of Mauryas, Hinduism took shape fundamentally.

In the eight century Islam came to India and by the 11th century it firmly established itself in India. The North Indian dynasties of the Lodhis, Tughlaqs, and numerous others, whose remains are visible in Delhi and scattered elsewhere around North India, were finally succeeded by the Mughal empire, under which India once again achieved a large measure of political unity.

The European presence in India date to the seventeenth century, and it is in the latter part of this century that the Mughal empire began to disintegrate, paving the way for regional states.

During the first half of the 20th century, a nationwide struggle for independence was launched by the Indian National Congress, and later joined by the Muslim League. The subcontinent gained independence from Great Britain in 1947, after being partitioned into the dominions of India and Pakistan.

The History of India can be broadly divided into following three categories.

■

[Ancient India](#)

Starting from Harappa Civilization in 3000 BC till Chola Dynasty in 985 AD.

■

Medieval India

Starting from Ghazni sacks Somnath Temple in 1026 AD till Siraj-ud-daulah captures Calcutta (Now Kolkatta) in 1756 AD.

Modern India

Starting from Battle of Plassy in 1757 Till Partition of India and Independence on 15 August 1947.

Important Dates Indian History

Following are some important dates of Indian History

Periods	Events/Significance
BC	
300-5000	Indus Valley Civilisation
563	Birt d of Gautama Buddha (or 576 BC in some sources)
527-540	Birt d of Mahavir; Nirvana
327-326	Alexander's invasion of India. It opened a land route between India and Europe
313	Accession of Chandragupta Maurya, according to Jain traditions.
305	Defeat of Seleucus at tde hands of Chandragupta Maurya
273-232	Ashoka's reign
261	Conquest of Kalinga
145-101	Reign of Elara, tde Chola king of Sri Lanka
58	Beginning of Vikrami Era
AD	
78	Beginning of Saka Era
120	Accession of Kanishka
320	Commencement of Gupta Era, tde golden age of Hindu India

380	Accession of Vikramaditya
405-411	Visit of Chinese traveller Fahien
415	Accession of Kumara Gupta I
455	Accession of Skanda Gupta
606-647	Harshavardhan's reign
712	First invasion in Sindh by Arabs
836	Accession of King Bhoja of Kannauj
985	Accession of Rajaraja the Chola ruler
998	Accession of Sultan Mahmud
1001	First invasion of India by Mahmud Ghazni who defeated Jaipal, ruler of Punjab.
1025	Destruction of Somnath Temple by Mahmud Ghazni
1191	First Battle of Tarain
1192	Second Battle of Tarain
1206	Accession of Qutub-ud-Din Aibak to the throne of Delhi
1210	Death of Qutub-ud-Din Aibak
1221	Changiz Khan invaded India (Mongol invasion)
1236	Accession of Razia Sultan to the throne of Delhi
1240	Death of Razia Sultan
1296	Accession of Ala-ud-Din Khilji
1316	Death of Ala-ud-Din Khilji
1325	Accession of Muhammad-bin Tughlaq
1327	Shifting of Capital from Delhi to Daulatabad in Deccan by the Tughlaqs
1336	Foundation of Vijayanagar empire in South
1351	Accession of Feroze Shah
1398	Invasion of India by Timur
1469	Birth of Guru Nanak
1494	Accession of Babur in Farghana
1497-98	First Voyage of Vasco de Gama to India (discovery of sea route to India via Cape of Good Hope) I
1526	First Battle of Panipat; Babur defeated Ibrahim Lodhi; foundation of Mughal dynasty by Babur

1527	Battle of Kanwaha-Babur defeated Rana Sanga
1530	Death of Babur and Accession of Humayun
1539	Sher Shah Suri defeated Humayun and became India's emperor
1555	Humayun recaptured the throne of Delhi
1556	Second battle of Panipal
1565	Battle of Talikota
1576	Battle of Haldighati - Rana Pratap defeated by Akbar
1582	Din-e-Ilahi founded by Akbar
1600	East India Company established
1605	Death of Akbar and accession of Jehangir
1606	Execution of Guru Arjun Dev
1611	Jehangir marries Nur Jahan
1616	Sir Thomas Roe visits Jehangir
1627	Birth of Shivaji and death of Jehangir
1628	Shah Jahan becomes emperor of India
1631	Death of Mumtaz Mahal
1634	The English permitted to trade in India (in Bengal)
1659	Accession of Aurangzeb, Shahjahan imprisoned
1665	Shivaji imprisoned, by Aurangzeb
1666	Death of Shah Jahan
1675	Execution of Guru Teg Bahadur, the ninth Guru of Sikhs
1680	Death of Shivaji
1707	Death of Aurangzeb
1708	Death of Guru Gobind Singh
1739	Nadir Shah Invades India
1757	Battle of Plassey, establishment of British political rule in India at the hands of Lord Clive
1761	Third Battle of Panipat; Shah Alam II becomes India's emperor
1764	Battle of Buxer
1765	Clive appointed Company's Governor of India
1767-69	First Mysore War

1780	Birth of Maharaja Ranjit Singh
1780-84	Second Mysore War
1784	Pitt's India Act
1790-92	Third Mysore War
1793	The Permanent Settlement of Bengal
1799	Fourth Mysore War - Death of Tipu Sultan
1802	Treaty of Bassein
1809	Treaty of Amritsar
1829	Practice of Sati Prohibited
1830	Raja Ram Mohan Roy visits England
1833	Death of Raja Ram Mohan Roy
1839	Death of Maharaja Ranjit Singh
1839-42	First Afghan War
1845-46	First Anglo-Sikh War
1852	Second Anglo-Burmese War
1853	First Railway line opened between Bombay and Thane and a Telegraph line in Calcutta
1857	The Sepoy Mutiny of First War of Independence, Kuka Movement
1861	Birth of Rabindranath Tagore
1869	Birth of Mahatma Gandhi
1885	Foundation of Indian National Congress
1889	Birth of Jawaharlal Nehru
1897	Birth of Subhash Chandra Bose
1904	Tibet Expedition
1905	First Battle of Bengal under Lord Curzon
1906	Foundation of Muslim League
1911	Delhi Darbar; King and Queen visit India; Delhi becomes the Capital of India
1914	World War I begins
1916	Lucknow Pact Signed by Muslim League and Congress
1918	World War I ends
1919	Montague-Chemsford Reforms introduced; Jallianwala Bagh Massacre at Amritsar

1920	Khilafat Movement launched
1927	Boycott of Simon Commission; broadcasting started in India
1928	Death of Lala Lajpat Rai
1929	Lord Irwin's Pact; resolution of complete independence passed at Lahore Congress
1930	Civil disobedience movement launched; Dandi March by Mahatma Gandhi (6 April, 1930)
1931	Gandhi Irwin Pact
1935	Government of India Act enacted
1937	Provincial Autonomy; Congress forms ministries
1939	World War II begins (September 1)
1941	Escape of Subhash Chandra Bose from India and death of Rabindranath Tagore
1942	Arrival of Cripps Mission in India; Quit India Movement launched (August 8)
1943-1944	Netaji Subhash Chandra Bose forms provisional Azad Hind Fauj and Indian National Army; Bengal Famine
1945	Trial of Indian National Army at Red Fort; Shimla Conference; World War II ends
1946	British Cabinet Mission visits India; Interim government formed at centre
1947	Division of India; Indian and Pakistan separate independent dominions
1948	Mahatma Gandhi assassinated (January 30); integration of princely states

Important Battles Indian History

Important Battles of Indian History	
BC	
327-26	Alexander invades India. Defeats Porus in the Battle of Hydaspes (Jhelum) 326 BC
305	Chandragupta Maurya defeats the Greek King Seleucus.
216	The Kalinga War. Conquest of Kalinga by Ashoka.
c. 155	Menander's invasion of India
c. 90	The Saka invade India
AD	
454	The first Huna invasion

495	The second Huna invasion
711-712	The Arab invasion of Sind under Mohammed-bin-Qasim
1000-27	Mahmud Ghazni invades India 17 times
1175-1206	Invasions of Muhammad Ghori. First Battle of Tarain. 1191 - Prithvi Raj Chauhan defeats Muhammad Ghori; Second Battle of Tarain, 1192 - Muhammad Ghori defeats Prithvi Chauhan; Battle of Chandawar, 1194 - Muhammad Ghori defeats Jayachandra Gahadvala of Kanauj.
1294	Alauddin Khilji invades the Yadava kingdom of Devagiri. The first Turkish invasion of the Deccan.
1398	Timur invades India. Defeats the Tughlaq Sultan Mahmud Shah; the Sack of Delhi
1526	Babur invades India and defeats the last Lodi Sultan Ibrahim Lohi in the first Battle of Panipat.
1539-40	Battles of Chusa or Ghaghra (1539) and Kanauj or Ganges (1540) in which Sher Shah defeats Humayun.
1545	Battle (siege) of kalinjar and death of Sher Shah Suri.
1556	Second Battle of Panipat. Akbar defeats Hemu.
1565	Battle of Rakatakshasi-Tangadi (Talikota) in which the forces of the empire of Vijanagar under King Sadasiva Raya and his regent Rama Raya are routed by the confederate forces of the Deccani states of Bijapur, Golkonda, Ahmadnagar, and Bidar.
1576	Battle of Haldighati, Akbar defeats Rana Pratap of Mewar.
1632-33	Conquest of Ahmadnagar by Shah Jahan.
1658	Battles of Dharmat (April-May 1658) and Samugarh (June 8, 1658). Dara Shikoh, eldest son of Shah Jahan, defeated by Aurangzeb.
1665	Shivaji defeated by Raja Jai Singh and Treaty of Purandhar.
1739	Invasion of India by Nadir Shah.
1746	First Carnatic War.
1748-54	Second Carnatic War.
1756-63	Third Carnatic War.
1757	Battle of Plassey. Siraj-ud-Daulah, the Nawab of Bengal, defeated by Clive.
1760	Battle of Wandiwash, in which the English under Sir Eyre Coote defeated the French under Lally.
1762	Third Battle of Panipat. Marathas defeated by Ahmad Shah Abdali.
1764	Battle of Buxar. The English (under Munro) defeated Mir Kasim, the Nawab of Bengal and Nawab Shuja-ud-daulah of Awadh.

1767-69	First Mysore War.
1774	The Rohilla War between the Rohillas and the Nawab of Awadh supported by the East India Company.
1775-82	First Maratha War
1780-82	Maratha War
1780-84	Second Mysore War
1792	Third Mysore War
1799	Fourth Mysore War, Defeat and death of Tipu Sultan
1802-04	Second Maratha War
1817-18	Third Maratha War
1845-46	first Sikh War
1846	Battle of Aliwal between the English and the Sikhs. The Sikhs were defeated.
1848-49	Second Sikh war and annexation of the Punjab to British India.
1857	The Revolt of 1857 (The First War of Indian Independence)

National Freedom Movement

The national freedom movement in India started in the second half of the 19th century. However uprising with motive of driving British out of India had started a century earlier. The communilative effect of British policies, economic exploitation, and administrative renovations over the years had adversely affected the position of all rulers of Indian states, *zamidars* , peasents, traders, *pundits* , etc.

During the 19th century, the Revolt of 1857 was the most important as it was the first major challenge to the British domination.

The origin of freedom movement in India had its strong foundation in the growth of nationalism in the country in the nineteenth century. The first war of independence fought in 1857 had national spirit and relected the people's acute urge to throw off the torturous yoke of alien rule.

Factors for emergence national freedom movement:-

1. Religious Awakening
2. The influence of Western Education
3. Emergence of Indian Press
4. Econnomic Exploitation

Revolt of 1857

Revolt of 1857: The causes of revolt:

1. Political Causes:

1. Growing suspicion among native rulers over Lord Dalhousie's policies of "Doctrine of Lapse" and Annexation of the Territories of Native Rulers
2. Annexation of Avadh on the ground of "misgovernance"
3. Disposing of Nawab Wazid Ali Shah, the reigning ruler of Avadh
4. Lord Canning's announcement that Mughals would lose the title of King and be mere Princess
5. Disbanding of the Pindaris and irregular soldiers who constituted a large section among the army ranks

2. Administrative and economic causes:

1. Inefficient administrative machinery of the company
2. Rampant corruption
3. Racialism in civil and military administration
4. Deprivation of the traditional ruling classes of their luxury due to the establishment of the company's suzerainty over the Indian states;
5. Introduction of new revenue system which snatched the land from cultivator and gave it to the moneylender or traitor
6. De-industrialisation of the country

3. Military causes :

1. Dispensing of Indian sepoy with alien rule
2. Compulsion of the sepoys to serve at the cantonments
3. Withdrawal of free postage facility to sepoys following the enactment of Post Office Act of 1854
4. Debarring the foreign service allowance or *batta* for sepoys serving in Sindh and Punjab
5. Racial discrimination.

4. Social and Religious causes :

1. Social discrimination of the British against Indians
2. Spread of Christianity through missionaries
3. Enactment of the Religious Disabilities Act 1850, which enabled a convert to inherit his ancestral property
4. Antagonism of the traditional Indian society into the law prohibiting *sati*, child marriage and female infanticide.

- 5. The Immediate cause: - Greased Cartridges:** The government introduced a new Enfield rifle for the Army. Its cartridges had a greased paper cover which had to be bitten off before the cartridge was loaded into the rifle. It was believed that the grease was composed of beef and pig fat. The Hindu as well as Muslim sepoys were enraged because the use of greased cartridges was against their religion and they feared that the government was deliberately trying to destroy their religion and convert to Christianity. The time to rebel has come.

Causes for the failure of Revolt :

By July 1858, the revolt was completely suppressed. Following factors may be the reason for the failure of revolt:

- Lack of coordination and central leadership. The revolt was supposed to have started on May 31, 1857 as decided by Nana Saheb and his colleagues. But the Merrut incidence led to early breaking of the revolt
- Lack of forward looking program.
- Indian leaders lacked resources and experience as compared to British.
- Lack of support and martial races of the North
- British power have remained intact in the eastern, western and southern parts of India from where the forces were sent to suppress the revolt
- Tacit support of certain sections of Indian public.
- Limited territorial and base.
- Many native Indian states, influenced by the example of powerful Hyderabad, did not join the revolt.
- Sikh soldiers of the Punjab area remained loyal to the British throughout.
- The aging Bahadur Shah was neither a brave general not an astute leader of people.

Impacts of the Revolt : The impacts of the 1857 revolt may be summarised as

- In August 1850, the British Parliament passed an act for Better Government of India, 1858, which put an end to the rule of the Company. The control of the British government in India was transfered to the British Crown.
- A minister of British government, called the Secretary of State, was made responsible for the Government of India.
- The British Governor general of India was now also given the title of Viceroy, who was also the representative of the Monarch.
- Marked the end of British imperialism and Princely states were assured against annexation. Doctrine of Lapse was withdrawn.
- Marked the end of Peshwaship and the Mughal rule.
- After the revolt, the British pursued the policy of divide and rule.
- Far-reaching changes were made in the administration and increase of white soldiers in the army.
- Total expense of the suppression of the Revolt was borne by the Indians.

A Brief Survey of the Major Centres of the Revolt of 1857			
Centre	Leaders	British Officials who suppressed the Revolt	Fate of the Leader
Delhi	Bahadur Shah, General Bakht Khan of Bareilly regiment	Nicholson, Lt Wiloughby, Lt Hudson	Bahadur Shah deported to Rangoon, Bakht Khan died in battlefied.
Lucknow	Befum Hazrat Mahal of Avadh	Colin Campbell	Escaped to Nepal
Kanput	Nana Saheb, Tantia Tope, Azimullah	Colin Campbell, Henry Havelock, Henry Lawrence	Nana Saheb escaped to Nepal, Tantia tope was hanged, Azimullah died of illness.
Jhansi	Lakshmibai	Hugh Rose	Died in battlefield.

Arrah	Kunwar Singh	William Tyler and Eyre	died of wound sustained in the fight
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Growth of Nationalism

Basically, nationalism in India rise to meet the challenge of foreign domination. The very existing of a foreign rule help to the growth of a national sentiment among the people. There was also a clash between the British interest in India and those of the Indian people. The British has conquered India to promote their own interest and the ruled over her primarily with that objective in view. With the best of time, this was realised in India and the realisation brought unity in India against foreign rule. It was timely responsible for the growth of national movement to drive out the foreigners from the country. All classes of people in India joined at one stage or other the nationalist moment.

British domination of India generated certain forces as a result of its direct and indirect consequences which ultimately challenged the British Empire. One important affect of the introduction of Western culture in India was the growth of modern political concepts like nationalism, nationality, political rights etc. And it were political associations which helped in 19th-century for the nationalism.

Pre-Congress Nationalist Organisations			
Organisation	Founder (S)	Year	Place
Landholder's Society	Dwarakanth Tagore	1830	Calcutta
Bangabhasha Prakasika Sabha	--	1836	Calcutta
Zamindari Association	Landholder's Society	1837	Calcutta
Poona Sarvajani Sabha	Justice Ranade and others	1870s	Poona
British India Society	William Adam	1839	London
Bengal British India Society	--	1843	Calcutta
British India Association(Result of the merger of first two organisations)	Devendranath Tagore	1851	Calcutta
Madras Native Association	--	1852	Madras
Bombay Association	Jagannath Shankeshet	1852	Bombay
East India Association	Dadabhai Naroji	1866	London
National Indian Association	Mary Carpenter	1867	London
Poona Sarvajani Sabha	Justice Ranade and others	1870	Poona
Indian society	Ananda mohan Bose	1872	London
India League	Babu Sisir Kumar Ghosh	1875	Calcutta
Indian Association	Anandamohan Bose and S.N. Banerji	1876	Calcutta
Madras Mahajan Sabha	G.S Aiyer, M Viraraghavachari, Anandacharlu, P Rangayya Naidu	1884	Madras

Bombay Presidency Association	Pheroza Shah Mehta K T Telang , Braduddin Tyabji etc	1885	Bombay
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Factor Responsible for growth of Nationalism in India:

1. **Political, Administrative and Economic Unification of India** : The British established the uniform, modern and highly centralised administrative, political and economic system in India. This generated a feeling of oneness among the people.
2. **Socio-religious Reforms** : The socio-religious movements in the 19th century, which brought out the cultural ideological struggle, played an important role in the evolution of nationalism. These movements were progressive in character as they sort reorganisation of society on democratic lines.
3. **Racism of the British Administration** : The racial discrimination practised by the British Administration made Indians conscious of national humiliation and resulted in feeling of oneness while facing British.
4. **Economic Exploitation** : The destruction of rural and local self-sufficient economy and introduction of modern goods and industries on all India level made India's economic life a single whole.
5. **English Language and Western Education** : English language gave a new and effective way of competition with educated Indians. It also made the Indian literature available to masses. This brought out the patriotic emotions among the Indian masses. The educated Indians feel the ideals of nationality, liberty and self-governance through reading the Liberal and radical thoughts of Rousseau, Voltaire, Mill, Bentham, Shelley and Milton.
7. **Role of Press** : The English press played an important role in mobilising public opinion, organising political movements and promoting nationalism. The Indian press advocated the cause of the local people which helped in the social and political reforms and emotions among Indians.
8. **Contemporary Nationalist Movements** :

The American Revolution of 1776, national liberation movements of Greece, Italy and Ireland in Europe, French Revolution of 1789, independence of Spanish and Portuguese colonies in South America considerably inspired Indians.

9. **Development of new means of Transport and Communication** : Development of new means of transport and communication made easier the integration of people living in different parts of the country.

Indian State Facts

About India: Capital of India is New Delhi.

India is a federal union of states comprising 28 states and 7 union territories. The states and territories are further subdivided into districts and so on.

- The **administrative capital** is where the executive government offices are located.
- The **legislative capital** is where the state assembly convenes.
- The **judicial capital** is the location of the state or territorial High Courts of India.
- The date mentioned in the table refers to when the city became the capital of the state or territory
- In the table *S* and *W* refers to the Summer and Winter sessions respectively.
- **The administrative capital is considered to be the main capital of the state.**
- In the absence of the legislative capital means that it is administered by the Central Government.

States and their Capitals				
State	Administrative Capital	Legislative Capital	Judicial Capital	Since
Andhra Pradesh	Hyderabad	Hyderabad	Hyderabad	1956
Arunachal Pradesh	Itanagar	Itanagar	Guwahati	1972
Assam	Dispur (Former Capital: Shilong(1874-1972))	Dispur	Guwahati	1972
Bihar	Patna	Patna	Patna	1936
Chhattisgarh	Raipur	Raipur	Bilaspur	2000
Goa	Panji	Porvorim	Mumbai	1961
Gujarat	Gandhinagar(Former Capital: Ahmedabad(1960-1970))	Gandhinagar	Ahmedabad	1970
Haryana	Chandigarh	Chandigarh	Chandigarh	1966
Himachal Pradesh	Shimla	Shimla	Shimla	1948
Jammu and Kashmir	Srinagar(S),Jammu(W)	Srinagar(S),Jammu(W)	Srinagar	1948
Jharkhand	Ranchi	Ranchi	Ranchi	2000
Karnataka	Bengaluru	Bengaluru	Bengaluru	1956
Kerala	Thiruvanantha-Puram (Former Capital: Kochi(1949-1956))	T'puram	Ernakulam	1956
Madhya Pradesh	Bhopal	Bhopal	Jabalpur	1956
Maharashtra	Mumbai	Mumbai	Mumbai	1818

Manipur	Imphal	Imphal	Guwahati	1947
Meghalaya	Shillong	Shillong	Guwahati	1970
Mizoram	Aizwal	Aizwal	Guwahati	1972
Nagaland	Kohima	Kohima	Guwahati	1963
Orissa	Bhubaneshwar (Former Capital: Cuttak (1936-1948))	Bhubaneshwar	Cuttack	1948
Punjab	Chandigarh (Former Capital: Lahore(1936-1947) & Shimla(1947-1966))	Chandigarh	Chandigarh	1966
Rajasthan	Jaipur	Jaipur	Jodhpur	1948
Sikkim	Gangtok	Gangtok	Gangtok	1975
Tamil Nadu	Chennai	Chennai	Chennai	1956
Tripura	Agartala	Agartala	Guwahati	1956
Uttarakhand	Dehradun	Dehradun	Nainital	2000
Uttar Pradesh	Lucknow	Lucknow	Allahabad	1937
West Bengal	Kolkata	Kolkata	Kolkata	1905
Union Territories				
Andaman and Nicobar Islands	Port Blair	--	Kolkata	1956
Chandigarh	Chandigarh	--	Chandigarh	1966
Dadra and Nagar Haveli	Silvasaa	--	Mumbai	1961
Daman and Diu	Daman	--	Mumbai	1987
Lakshadweep	Kavaratti	--	Ernakulam	1956
National Capital Territory of Delhi	N.Delhi	--	--	--
Ponducherry	Ponducherry	Ponducherry	Chennai	1954

Anniversaries and Days

Following are some of the Important Indian and International Anniversaries and Days.

January	
Army Corsep Establishment Day	January 1
Infant Protection Day	January 7
African National Congress Foundation Day	January 8
NRI Day	January 9
National Youth Day	January 12
Army Day	January 15
International Custom Duty Day, Indian Tourism Day	January 25
Republic Day (India), International Customs Day; Law Day	January 26
International Day of Solidarity with Palestinian	January 29
Martyrs' Day (India), World Leprosy Eradication Day	January 30
Sarvodaya Day	January 30
February	
Rose Day	February 12
Sarojini Naidu's Birth Anniversary	February 13
World Marriage Day	Second Sunday of February. (February 13)
Valentine Day	February 14
Delhi Police Day, National Day, Lithuania	February 16
Arunachal Pradesh, Mizoram Day	February 20
Mother Tongue Day (World)	February 21
Central Excise Day	February 24
National Science Day	February 28
March	
National Safety Day	May 4
International Women's Day International Literacy Day	March 8
World Kidney Day	May 9

CISF Foundation Day	May 12
World Consumer Day	May 14
World Disabled Day World Consumer Rights Day	March 15
World Forestry Day International Day for Elimination of Racial	March 21
World Day for Water	March 22
World Meteorological Day	March 23
Ram Manohar Lohia's Birth Day (Anniversary)	March 23
Bhagat Singh, Sukhdev and Rajguru's Martyrdom Day	March 23
World TB Day	March 24
Rural Postal Life Insurance Day	March 24
National Day of Bangladesh	March 26
World Theatre Day	March 27
April	
National Day, Senegal	April 4
National Maritime Day	April 5
SPG(Special Protection Group)	April 7
World Health Day	April 7
CRPF Valour Day	April 9
Water Resources Day/National Survey Day	April 10
World Homeopathy Day (Birth day of Samuel Hahnemann)	April 10
B.R. Ambedkar Remembrance Day, Fire Extinguishing Day	April 14
National Day, Syria World Haemophilia Day	April 17
World Heritage Day National Day Zimbabwe	April 18
Secretaries's Day, Indian Civil Service Day	April 21
Earth Day	April 22
World Books and Copyright Day	April 23
Panchayat Divas	April 24

National Day, Tanzania	April 26
South Africa Freedom Day	April 27
May	
Worker's Day (International Labour Day)	May 1
World Asthma Day	First Tuesday of May
World Press Freedom Day	May 3
Coal Miner's Day	May 4
World Red Cross Day	May 8
World Migratory Birds Day	May 8
World Laughter Day	First Sunday of May
World Mother's Day	Second Sunday of May
World Thalassaemia Day	May 9
National Technology Day	May 11
International Nurses day	May 12
Natioanl Solidarity Day	May 13
International Day of the Family	May 15
World Telecommunication Day	May 17
Anti-Terrorism Day	May 21
National Day, Yemen	May 22
Africa Day	May 23
Commonwealth Day	May 24
National Day, Argentina	May 25
Death Anniversary of Jawahar Lal Nehru	May 27
National Day, Ethiopia	May 28
Everest Day	May 29
Anti-Tobacco Day (No Smoking Day)	May 31
June	
International Day of Innocent Children Victims of Aggression	June 4
World Environment Day	June 5
National Day, Sweden	June 6

National Day, Portugal	June 10
National Day, Seychelles	June 14
World Blood Donation Day	June 14
World Consumer Rights Day World	June 15
National Day, Iceland	June 17
Father's Day	Third Sunday of June
World Refugee Day	June 20
U.N. Charter Signing Day	June 25
International Day Against Drug Abuse & Illicit Trafficking	June 26
Poor's Day	June 28
National Day, Congo	June 30
July	
Doctor's Day (Birth of Dr. Bidhan Chandra Roy)	July 1
State Bank of India Foundation Day	July 1
American Independence Day	July 4
World Zoonosis Day	July 6
World Population Day	July 11
Kargil Memorial Day	July 26
August	
World Breast Feeding Day	August 1-7
International Friendship Day	August 3
World Peace Day, Hiroshima Day	August 6
World Senior Citizen's Day	August 8
Quit India Day Nagasaki Day	August 9
World Youth Day	August 12
Indian Independence Day	August 15
International Day of the World's Indigenous People	August 18
Photography Day	August 19
Sabdhavna Divas	August 20
National Sports Day (Birth Day of Dhyanchand)	August 29

Small Industry Day	August 30
September	
World Yoga Day	September 2
Coconut Day	September 2
Teacher's Day (Birth Day of S.Radhakrishan)	September 5
Sanskrit Day	September 5
Forgiveness Day	September 7
World (International) Literacy Day	September 8
Hindi Day	September 14
All India Flag Day	September 15
Engineer's Day	September 15
World Ozone Day	September 16
RPF(Railway Protection Force) Foundation Day	September 20
Alzheimer's Day	September 21
Day for Peace & Non-Violence (UN)	September 21
Rose Day (Welfare of Cancer Patients)	September 22
World Heart Day, Social Justice Day International Tiger Day	September 25
Day of the Deaf	September 26
World Tourism Day	September 27
October	
International Day of the Elderly	October 1
Gandhi Jayanti, International Day of Non-Violence	October 2
Lal Bahadur Shastri's Birth Anniversary	October 2
World Animal Day	October 2
World Vegetarian Day	October 2
World Habitat Day	October 3
World Animal Welfare Day	October 4
World Teacher's Day	October 5
World Wild Animal Day	October 6
Indian Air Force Day	October 8

World Post Office Day	October 9
National Post Day	October 10
World Sight Day	Second Thrusday of October
UN International Day for Natural Disaster Reduction	October 13
World Standards Day	October 14
World White Cane Day (guiding the blind)	October 15
World Food Day	October 16
World Allergy Awareness Day	October 16
Police Commemoration Day	October 21
UN Day	October 24
World Development Information Day	October 24
Infants Day	October 27
World Thrift Day	October 30
National Rededication Day	October 31
National Integration Day	October 31
Death Anniversary of Indira Gandhi	October 31
November	
Legal Services Day	November 9
Children's Day	November 14
World Diabetes Day	November 14
International Day for Endurance	November 16
National Journalism Day	November 17
World Adult Day	November 18
World Citizen's Day	November 19
Universal Children's Day	November 20
Africa Industrialisation Day	November 20
World Television Day	November 21
National Law Day	November 26
World Environment Protection Day	December 26
International Day of Solidarity with Palestinian People	November 29

December	
World AIDS Day	December 1
International Day for the Abolition of Slavery	December 2
World Disabled Day	December 3
Chemical Accidents Prevention Day	December 4
Navy Day	December 4
International Volunteers Day	December 5
Armed Forces Flag Day	December 7
International Civil Aviation Day	December 7
Girl Child Day (Balika Divas), India	December 9
International Human Rights Day	December 10
World Children's Fund Day	December 11
Natioinal Energy Conversation Day	December 14
Liberation Day of Goa	December 19
Farmer's Day (Kisan Day, Birthday of Chaudhary Charan Singh)	December 23
X-mass Day	December 25
CPRF Foundation Day	December 26

Books by Indian Authors

Following are some of the books by Indian Authors

Book Name	Author
A bend in the river	V.S. Naipal
A brush with life	Satish Gujral
A House of Mr. Biswar	V.S. Naipal
A Million Mutinies Now	V.S. Naipal
A Passage to England	Nirad C.Chodhury
A Prisoner's Scrapbook	L.K. Advani
A River Sutra	Gita Mehra
A sense of time	H.S.Vatsyayan

A strange and subline address	Amit Chaudhary
A suitable boy	Vikram Seth
A village by the sea	Anita Desai
A voice for freedom	Nayantara Sehgal
Aansoo	Jayashankar Prasad
Afternoon Raag	Amit Chaudhari
Ageless Body, Timeless Mind	Deepak Chopra
Agni Veena	Kazi Nazrul Islam
Ain-i-Akbari	Abul Fazal
Amar Kosh	Amar Singh
An autobiography	Jawaharlal Nehru
An Equal Music	Vikram Seth
An Idealist View of life	Dr. S. Radhakrishnan
Amrit Aur Vish	Amrit Lal Nagar
Anamika	Suryakant Tripathi Nirala
Anandmath	Bankim Chandra Chatterjee
Areas of Darkness	V.S. Naipal
Arthashastra	Kautilya
Ashtadhyayi	Panini
Autobiography of an Unknown India	Nirad C. Choudhury
Bandicoot Run	Manohar Malgonkar
Beginning of the Beginning	Bhagwan Shri Rajneesh
Between the Lines	Kuldip Nayyar
Beyond Modernisation, Beyond Self	Sisirkumar Ghose
Bhagvad Gita	Ved Vyas
Bharat Bharati	Maithilisharan Gupt
Bharat Durdasha	Bhartendu Harischandra
Border and Boundaries: women in India's Partition	Ritu Menon & Kamla Bhasin
Bharat Bharati	Maithili Saran Gupt
Breaking the Silence	Anees Jung

Bride and the Sahib and the other stories	Khushwant Singh
Broken Wings	Sarojini Naidu
Bubble, The	Mulk Raj Anand
Buddha Charitam	Ashwaghosh
By God's Decree	Kapil Dev
Chandalika	Rabindra Nath Tagore
Chandrakanta Santati	Devkinandan Khatri
Chemmen: Thakazhi	Sivasankara Pillai
Chitra	Rabindranath Tagore
Chित्रalekha	Bhagwati Charan Verma
Chitrangada	Rabindra Nath Tagore
Circle of Reason	Amitav Ghosh
Clear Light of Day	Anita Desai
Confessions of a Lower	Mulk Raj Anand
Confrontation with Pakistan	B. M. Kaul
Conquest of Self	Mahatma Ghandhi
Continent of Crime	Nirad C Chaudhary
Coolie	Mulk Raj Anand
Court Dancer	Rabindranath Tagore
Culture in the Vanity Bag	Nirad C Chaudhury
Days of My Years	H.P. Nanda
Daybhag	Jeemootwahan
Death of a City	Amrita Pritam
Devdas	Sharat Chandra Chatterjee
Discovery of India	Jawaharlal Nehru
Distant Drums	Manohar Malgonkar
Distint Neighbours: India	Kuldip Nayar
Divine Life	Swami Shivananda
Durgesh Nandini	Bankim Chandra Chatterjee
Dynamics of Social Change	Chandra Shekhar

Eight Lives	Rajmohan Gandhi
English August	Upamanyu Chatterjee
Essays on Gita	Sri Aurobindo Ghosh
Eternal Himalayas	Major H.P.S. Ahluwalia
Eternal India	Mrs Indira Gandhi
Faces of Everest	Major H.P.S. Ahluwalia
Foreign Policy of India	I.K. Gujral
Forty Nine Days	Amrita Pritam
From Rajpath to Lokpath	Vijaya Raje Scindia
Gaban	Munsi Premchand
Ganadevata	Tara Shankar Bandopadhyaya
Gardener	Rabindra Nath Tagore
Geet Govind	Jayadev
Ghasiram Kotwal	Vijay Tendulkar
Gitanjali	Rabindranath Tagore
Gita Rahasya	Bal Gangadhar Tilak
Glimpses of World History	Jawaharlal Nehru
Godan	Prem Chand
Golden Threshold	Sarojini Naidu
Gora	Rabindra Nath Tagore
Guide	R.K. Narayanan
Harsha Charita	Bana Bhatta
Harvest	Manjula Padmanabhan
Heir Apparent	Dr. Karan Singh
Himalayan Blunder	Brigadier J.P. Dalvi
Hind Swaraj	M.K. Gandhi
Hindu View of Life	Dr. S. Radhakrishnan
Hinduism	Nirad C. Choudhury
History of India	Romila Thapar
Hullabaloo in a Guava Orchard	Kiran Desai

Humanyunama	Gulbadan Beghum
Hungary Stones	Rabindranath Tagore
I follow the Mahatma	K.M. Munshi
Idols	Sunil Gavaskar
India After Nehru	Kuldip Nayyar
India Divided	Rajendra Prasad
India Unbound	Gurcharan Das
India of Our Dreams	M.V. Kamath
India Wins Freedom	Abdul Kalam Azad
India's Priceless Heritage	N.A. Palkhivala
Indian Philosophy	Dr. S. Radhakrishnan
Indira Ghandi Returns	Khushwant Singh
Indira Gandhi: Badhate Kadam	Khushwant Singh
Inscrutable Americans	Anurag Mathur
Interpreter of Maladies	Jhumpa Lahiri
It's Always Possible	Kiran Bedi
Jai Somnath	K.M. Munshi
Jayadev	Geet Govind
Jhansi Ki Rani	Vrindavanlal Verma
Kadambari	Bana Bhatt
Kagaz Te Kanwas	Amrita Pritam
Kamasutra	S.H. Vatsyayan
Kanthapura	Raja Rao
Kapala Kundala	Bankim Chandra Chatterjee
Karmabhumi	Munsi Premchand
Kashmir: A Tale of Shame	Hari Jaisingh
Kashmr: A Tragedy of Errors Kayar	Thakazhi Sivasankara Pillai
Kitab-ul-Hind	Al-Beruni
Kitni Nawon Kitni Bar	S.H. Vatsyayan
Kulliyat	Ghalib

Kumar Sambhava	Kalidas
Kurukshetra	Ramdhari Singh Dinkar
Last Burden	Upamanyu Chatterjee
Life Divine	Sri Aurobindo Ghosh
Lipika	Rabindranath Tagore
Lost Child	Mulk Raj Anand
Mahabharata	Ved Vyas
Mahatma Gandhi and his Apolstles	Ved Mehta
Malgudi Days	R.K. Narayanan
Malti Madhav	Bhavabhuti
Meghdootam	Kalidasa
Mitakshara	Vigyaneshwar
Mrichhakatikam	Shudrak
My Days	R.K. Narayanan
My India	S. Nihal Singh
My Life and Times	V.V. Giri
My Music, My Life	Pt. Ravi Shankar
My Presidential Years	R. Venkatraman
My Truth	Indira Gandhi
Mudra Rakshas	Vishakhadatta
Natural History	Plini
New Dimensions of India's Foreign Policy	A.B. Vajpayee
Nisheeth	Uma Shankar Joshi
Operation Bluestar: The True Story	Lt. Gen K.S. Brar
Our Films, Their Films	Satyajit Ray
Padmavat	Malik Mohammed Jayasi
Painter of Signs	R.K. Narayan
Panchatantra	Vishnu Sharma
Parineeta	Sharat Chandra Chatterji
Past Forward	G.R. Narayanan

Pather Panchali	Bibhuti Bhushan
Plain Speaking	N. Chandrababu Naidu
Portrait of India	Ved Mehta
Post Office	Rabindranath Tagore
Prem Pachisi	Munsi Prem Chand
Prem Vatika	Raskhan
Rajatarangini	Kalhana
Ram Charita Manas	Tulsidas
Ramayana	Maharishi Valmiki
Raghuvamsa	Kalidas
Ranghbhommi	Munsi Premchand
Ratnavali	Harsha Vardhan
Ravi Paar (Across the River)	Gulzar
Red Earth and Pouring Rain	Vikram Chandra
Ritu Samhara	Kalidas
Saket	Maithili Sharan Gupta
Satya Karischandra	Bhartendu Harischandra
Sakharam Binder	Vijay Tendulkar
Secular Agenda	Arun Shourie
Seven Summers	Mulk Raj Anand
Shadow from Ladakh	Bhabani Bhattacharya
Shahnama	Firdausi
Shrikant	Sharat Chandra Chatterji
Snakes and Ladders: Essays on India	Gita Mehta
Social Change in Modern India	M.N. Srinivas
Sultry Days	Shobha De
Sunny Days	Sunil Gavaskar
Sursagar	Sur Das
Swami and Friends	R.K. Narayanan
The Bride's Book of Beauty	Mulk Raj Anand

The Cat and Shakespeare	Raja Rao
The Company of Women	Khushwant Singh
The Critical Years: In Jail	Kuldip Nayyar
The Dark Room	R.K. Narayanan
The Degeneration of India	T.N. Seshan
The Glass Palace	Amitav Ghosh
The God of Small Things	Arundhati Roy
The Golden Gate	Vikram Seth
The Judgement	Kuldip Nayyar
The Men Who Killed Gandhi	Manohar Malgonkar
The Seven Spiritual Laws of Success	Deepak Chopra
The Songs of India	Sarojini Naidu
The Story of My Experiments with Truth	Mahatma Gandhi
The Strange and Sublime Address	Amit Chaudhuri
The Sword and the Sickle	Mulk Raj Anand
The vendor of Sweets	R.K. Narayanan
The way of the Wizard	Deepak Chopra
Train to Pakistan	Khushwant Singh
Two Leaves and a Bud	Mulk Raj Anand
Untold Story	B. M. Kaul
Urvashi	Ramdhari Singh Dinkar
Visarjana	Rabindra Nath Tagore
Waiting for the Mahatma	R.K. Narayanan
Wake up India	Annie Besant
We, Indians	Khushwant Singh
Wreck, The	Rabindranath Tagore
Yama	Mahadevi Verma
Yashodhara	Maithili Sharan Gupt
Years of Pilgrimage	Dr. Raja Ramana

News Papers and Journals Founder in India

Following are some of the Founders of News paper and Journals in India.

Newspaper/Journal Name	Founder
Bengal Gazette(1780)(India's First Newspaper)	J.K.Hikki
Kesari	B.G.Tilak
Maharatta	B.G.Tilak
Sudharak	G.K.Gokhale
Amrita Bazar Patrika	Sisir Kumar Ghosh and Motilal Ghosh
Vande Mataram	Aurobindo Ghosh
Native Opinion	V.N. Mandalik
Kavivachan Sudha	Bhartendu Harishchandra
Rast Goftar(first newspaper in Gujrati)	Dadabhai Naoroji
New India(Weekly)	Bipin Chandra Pal
Statesman	Robert Knight
Hindu	Vir Raghavacharya and G.S. Aiyar
Sandhya	B.B. Upadhyaya
Vichar Lahiri	Krishnashastri Chiplunkar
Hindu Patriot	Girish Chandra Ghosh(later Harish Chandra Mukherji)
Som Prakesh	Ishwar Chandra Vidyasagar
Yugantar	Bhupendranath Data and Barinder Kumar Ghosh
Bombay Chronicle	Firoze Shah Mehta
Hindustan	M.M. Malviya
Mooknayak	B.R. Ambedkar
Comrade	Mohammad Ali
Tahzib-ul-Akhlaq	Sir Syeed Ahmed Khan
Al-Hilal	Abul Kalam Azad
Al-Balagh	Abul Kalam Azad
Independent	Motilal Nehru

Punjabi	Lala Lajpat Rai
New India(Daily)	Annie Besant
Commonweal	Annie Besant
Pratap	Ganesh Shankar Vidyarthi
Essays in Indian Economics	M.G. Ranade
Samvad Kaumudi (Bengali)	Ram Mohan Roy
Mirat-ul-Akbhar	Ram Mohan Roy(first Persian Newspaper)
Indian Mirror	Devendra Nath Tagore
Nav Jeevan	M.K Ghandhi
Young India	M.K Ghandhi
Harijan	M.K Ghandhi
Prabudha Bharat	Swami Vivekananda
Udbodhana	Swami Vivekananda
Indian Socialist	Shyamji Krishna Verma
Talwar(in Berlin)	Birendra Nath Chattopadhyaya
Free Hindustan(in Vancouver)	Tarak Nath Das
Hindustan Times	K.M. Pannikar
Kranti	Mirajkar, Joglekar, Ghate

Famous Nicknames of Eminent Persons

Nickname	Person
Father of the Nation	Mahatma Gandhi
Bapu	Mahatma Gandhi
Frontier Gandhi, Badshah Khan	Khan Abdul Ghaffar Khan
Grand Old man of India	Dadabhai Naoroji
Strong (Iron) Man of India	Sardar Vallabhbhai Patel
Man of Peace	Lal Bahadur Shastri
Punjab Kesari	Lala Lajpat Rai

Bengal Kesari	Ashutosh Mukherji
Bihar Kesari	Dr. Srikrishna Singh
Andhra Kesari	T. Prakasam
Sher-e-Kashmir	Sheikh Abdullah
Bangabandhu	Sheikh Mujibut Rahman
Deshbandhu	Chitta Ranjan Das
Deenbandhu	C.F. Andrews
Lokmanya	Bal Gangadhar Tilak
Loknayak	Jayaprakash Narayan
Jana Nayak	Karpuri Thakur
Rajarshee	Purushottam Das Tandon
Gurudev	Rabindranath Tagore
Guruji	M.S. Golwalkar
Desh Ratna	Dr. Rajendra Prasad
Ajatshatru	Dr. Rajendra Prasad
Mahamana	Pt. Madan Mohan Malaviya
Netaji	Subhash Chandra Bose
Chacha	Jawaharlal Nehru
Rajaji/C.R.	Chakravarti Rajagopalachari
Sparrow	Major General Rajinder Singh
Young Turk	Chandra Shekhar
Tau	Chaudhury Devi Lal
Sahid-e-Azam	Bhagat Singh
Nightingale of India	Sarojini Naidu
Lady with the lamp	Florence Nightingale
Swar Kokila	Lata Mangeshkar
Udanpari	P.T. Usha
Mother	Mother Teresa
Vishwa Kavi	Rabindranath Tagore
Kaviguru	Rabindranath Tagore

Sardar	Vallabhbhai Patel
Tota-e-Hind	Amir Khushro
Lal, Bal, Pal	Lala Lajpat Rai, Bal Gangadhar Tilak and Bipin Chandra Pal
Bihar Vibhuti	Dr. Anugrah Narayan Singh
Babuji	Jagjeevan Ram
Napoleon of India	Samudra Gupta
Shakespeare of India	Mahakavi Kalidas
Machiavelli of India	Chanakya
Akbar of Kashmir	Jainul Abdin
Father of Gujarat	Ravi Shankar Maharaj
Grandfather of Indian Films	Dhundiraj Govind Phalke
Morning Star of India Renaissance	Raja Ram Mohan Roy
King Maker of Indian History	Sayyed Bandhu
Anna	C.N. Annadurai
G.B.S	George Bernard Shaw
Haryana Hurricane	Kapil Dev
Little Master	Sunil Gavaskar
Magician of Hockey	Dhyanchand
Deshpriya	Yatindra Mohan Sengupta
Kuvempu	K.V. Puttappa
Little Corporal	Napoleon Bonaparte
Man of Destiny	Napoleon Bonaparte
Fuehrer	Adolf Hitler
King Maker	Earl of Warwick
Uncle Ho	Ho Chi Minh
Bard of Avon	William Shakespeare
Li-Kwan	Pearl Buck
Father of English Poetry	Geoffery Chaucer
Grand Old man of Britain	William E. Gladstone
Maiden Queen	Queen Elizabeth I

Maid of Orleans	Joan of Arc
Man of Blood and Iron	Otto Van Bismark
II Duce	Benito Mussolini
Desert Fox	Gen Ervin Rommel
Quaid-i-Azam	Md. Ali Jinnah

Famous Places associated with Eminent Persons

Place	Person
Kapilvastu	Gautam Buddha
Macedonia	Alexander, the Great
Jalianwala Bagh	General Dyer
Anand Bhawan	Jawaharlal Nehru
Chittore	Maharana Pratap
Haldi Ghati	Maharana Pratap
Sabarmati	Mahatma Gandhi
Sitab Diyara	Jai Prakash Narayan
Shantiniketan	Rabindra Nath Tagore
Talwandi	Guru Nanak
Sevagram	Mahatma Gandhi
Pawapuri	Mahavir
Kushi Nagar	Gautam Buddha
Ibrahim Patti	Chandra Shekhar
Lumbini	Gautam Buddha
Mecca	Prophet Mohammed
Waterloo	Napoleon Bonaparte
Porbandar	Mahatma Gandhi
Bardoli	Sardar Patel
Fatehpur Sikri	Akbar, the Great
Puducherry	Aurobindo Ghosh
Belur Math	Rama Krishna Paramhans
Pawanar	Vinoba Bhave
Seringapatnam	Tipu Sultan
Kundgram	Mahavir
Jeeradei	Dr. Rajendra Prasad

Cuttack	Subhash Chandra Bose
Trimurti Bhawan	Jawaharlal Nehru
Jerusalem	Jesus Christ
Corsica	Napoleon Bonaparte
Trafalgar	Nelson

Crematorium of Famous Persons

Place	Person
Raj Ghat	Mahatma Gandhi
Vijay Ghat	Lal Bahadur Shastri
Kishan Ghat	Chaudhary Charan Singh
Veer Bhumi	Rajiv Ghandhi
Shanti Van	Jawahar Lal Nehru
Shakri Sthal	Indira Gandhi
Abhay Ghat	Morarji Desai
Samata Sthal	Dr Shankar Dayal Sharma
Mahaprayan Ghat	Dr Rajendra Prasad
Ekta Sthal	Giani Zail Singh, Chandra Shekhar
Uday Bhoomi	K.R. Narayanan

Great Works of Famous Persons

Works	Persons
Foundation of Red Cross	Henery Dunant
Foundation of Scout	Baden Powell
Foundation of Red Gaurds	Garrywaldy

Founder of Socialism	Archarya Narendra Dev
Father of Sanskrit Grammer	Panini
Founder of Anand Van	Babe Amte
Founder of 'Auroville Ashram'	Aurobindo Ghosh
Founder of Shantiniketan	Rabindra Nath Tagore
Founder of Vishwabharati	Rabindra Nath Tagore
Founder of Pawnar Ashram	Vinoba Bhave
Founder of Bhudan Movement	Vinoba Bhave
Founder of League of Nations	Woodrow Wilson
Founder of Golden Temple	Guru Arjun Dev
Founder of Khalsa (Panth)	Guru Gobind Singh

Governor Generals and Viceroy

India under Governor generals:

1.

• • • • •

Warren Hastings (1772-1785)	
Administrative reforms	And of the dual systems; shifting of treasury from Murshidabad to Calcutta.
Revenue reforms	Collection of revenue was taken over by the Company.
Judicial reforms	Zamindars were given judicial powers; establishment of civil and criminal courts in each district.
Social reforms	In 1781, he founded the Calcutta Madrasa for promotion of Islamic studies. This was the first

A portrait of Warren Hastings, a British statesman and the first Governor-General of India. He is depicted from the waist up, seated, wearing a dark blue military-style coat with brass buttons over a light-colored waistcoat and a white cravat. He has light brown hair and is looking slightly to his left. The background is a dark, patterned curtain.

	educational institute established by the Company's government.	
Impeachment	Warren Hastings tendered his resignation in protest against the Pits India Bill in 1785. He was accused for the Rohilla bar; Nand Kumar's murder; the case of the Chet Singh and accepting of bribes. His impeachment lasted for seven years from 1788 to 1795. He was exonerated for all the charges.	

3.

Sir John Macpherson, (1785-1786) He held the post temporarily.	
---	---

5.

• • • Lord Cornwallis (1786-1793)		
Permanent settlement of Bengal	The land was given on permanent basis to the <i>zamindar</i> in 1793, instead of giving it to the highest bidder each year. This system got prosperity to both the Company and <i>zamindar</i> had the cost of the common peasantry.	
Judicial reforms	Reorganisation of the revenue courts; the reorganisation of the criminal courts; depriving the Collectors of the judicial functions; compilation of the Cornwallis Code.	

Police
reforms

Depriving *zamindar* of their police
functions; establishment of the *thanas*

7.

Sir John Shore (1793-1798)

He followed a policy of non-intervention.



8.

•
Sir Alured Clark (1798)

He held the post temporarily.



10.

Lord Wellesley, (1798-1805)

He is famous for introducing *Subsidiary Alliance system*. He opened college to train the Company's servants in Calcutta. That is why he is also called the *Father of the Civil Services in India*.



12.

Lord Cornwallis (1805)

Pointed for another term, he however died very soon.



14.

Sir George Barlow (1805-1807)

An important event was the Mutiny of Vellore in 1806 in which the Indian soldiers killed many English officials.

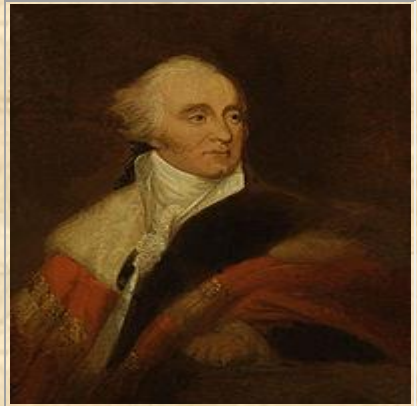


16.

• •

Lord Minto I (1807-1813)

His rule famous for a treaty with Shah of Persia and Treaty of Amritsar (1809) with Ranjit Singh. Recent Sir Charles Metcalfe to the court of Ranjit Singh.



18.

• •

Marquess of Hasting (1813-1823)

He was the first to appoint Indians to the highest Ops of responsibility. The first vernacular newspaper *Samahar Patrika* begin to be published during his time.

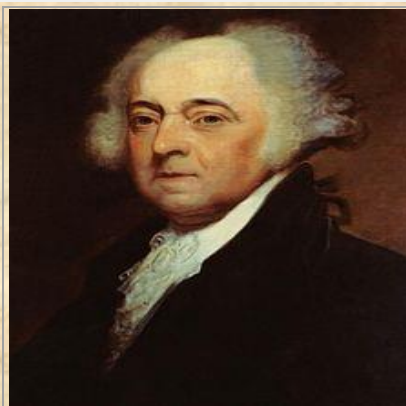


20.

• •

John Adam (1823)

He held the post temporarily.



22.

Lord Amherst (1823-1828)

A portrait of a man in 18th-century military uniform, likely a French general. He is wearing a red coat with gold fringes on the lapels and cuffs, a white cravat, and a large white wig. A large, ornate military decoration is pinned to his left breast. The background is dark and oval-shaped.

William Bayley (1818)

A circular, black and white portrait of a middle-aged man with dark hair, a high forehead, and a serious expression. He is wearing a dark suit jacket over a white shirt and a dark bow tie. The portrait is set within a circular frame.

William Bayley, 1802-1891

• • • • •

Lord William Bentinck (1828-1833)

Abolition of provincial courts of appeal and circuit, power of the magistrate increased, appointment of Indians as judges, replacement of Persian by vernaculars and Scott language, introduction of the residuary system, Sardar Diwani Adalat at Allahabad; Codification of Laws.

English accepted as the medium of instruction after the famous Macaulay's recommendation;



	Medical colleges at Calcutta in 1835.	
Social reforms	Abolition of <i>sati</i> in 1829. Suppression of <i>thuggee</i> in central India; banning of female infanticide; banning of human sacrifice; reform in the Hindu Law of Inheritance.	

28.

• • Sir Charles Metcalfe (1835-36) He held the post temporarily. He removed the restriction on the vernacular press.	
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30.

• • Lord Auckland (1836-42) Important events of his regime included the outbreak of first Afghan War and the signing of a Tripartite Treaty among the English, Ranjit Singh and Shah Shuja of Afghanistan.	
--	---

32.

• •

Lord Ellenborough (1842-1844)

His period is known for the end of the first Afghan war, annexation of Sindh to the British Empire (1843).



34.

• •

William Wilberforce Bird (1844)

He held the post temporarily.



36.

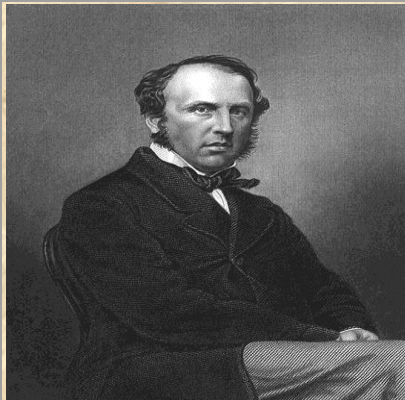
• •

Lord Hardinge (1844-1848)

The most important event of his featured his First Sikh War (1845-1846).

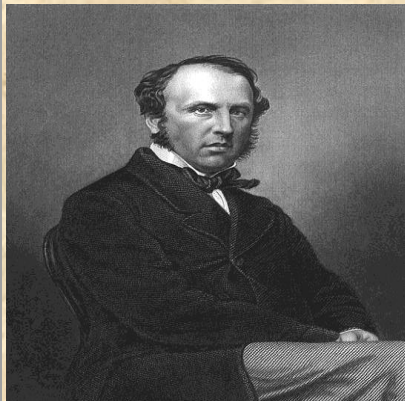


38.

• •	
Lord Canning (1856-1858)	
Annexation of Avadh; enactment of Hindu Widow Remarriage Bill, 1857; establishment of universities at Calcutta, Madras and Bombay; the revolt of 1857 who were some of the important events during his post of Governor General.	
	

India Under Viceroy

1.

• •	
Lord Canning (1858-1862)	
Following the Queen's recommendation in 1858, transferring the Government from the company to the British Crown, Lord Canning was made the first Viceroy of India. Important developments in his regime were as follows:	
Financial reforms	Hey 5% income tax was imposed on all are links beyond Rs. 500 a year.
Judicial reforms	Penal code was prepared by incorporating the suggestions earlier made by the First Law Commission headed by Lord Macaulay. High courts were set up at Calcutta, Bombay and Madras under the provisions of the Indian High Courts act of 1861.
	

2.

• •

Lord Elgin Ist (1861-1863)

The most important event of his time over the suppression of the Wahabi tribe of the fanatic Muslims inhabiting the North West Frontier.



4.

• •

Lord John Lawrence (1864-1869)

An important event of this time was war against Bhutan in 1865. The Punjab and Oudh Tenancy Act, 1860, was enacted. Two famines hit India; first in 1800 in Orrisa and second in 1868-69 in Bundelkhand and Rajputana. A Famine Commission was set up under the chairmanship of **Sir Henry Campbell**.

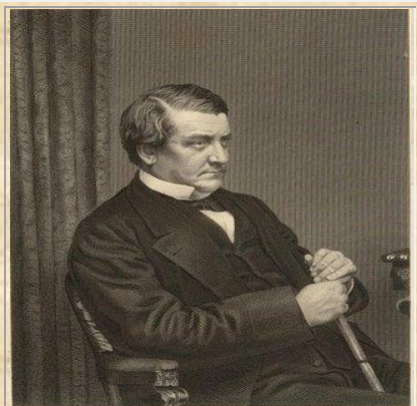


6.

• •

Lord Mayo (1869-1872)

For the first time in my Indian history census was held in 1871. The college was setup and Ajmer to impart suitable education to the sons of the Indian princess. Subsequently, this college came to known as the 'Mayo College". And agricultural department was setup. In 1872, a convict Sher Ali stabbed him to death at Port Blair.

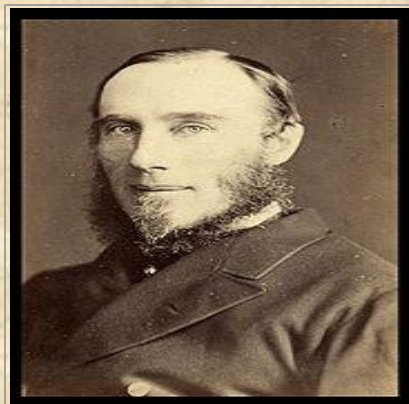


8.

• •

Lord Northbrook (1872-1876)

The main events of this period were: deposition of Gaekwad in 1874; the Kuka movement; visit of Prince of Wales; abolition of income tax; famine in Bihar and Bengal in 1873-1874.



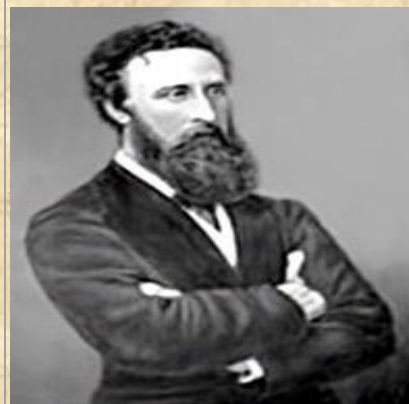
10.

• •

Lord Lytton (1876-1880)

Main events of his time period were :

1. Famine in 1876-1878; Famine Commission was appointed in 1878 headed by **General Richard Strachey**.
2. The Delhi Durbar, January 1, 1877, was held to decorate Queen Victoria with the title *Kaiser-i-Hind*.
3. The Vernacular Press Act, 1878 was passed, putting several curbs on the vernacular newspapers.
4. Indian Arms act, 1878 forbade the Indian people from keeping or dealing in arms with the permission of the Government.
5. Foundation of the Mohammedan Anglo-Oriental College was laid by Lord Lytton in 1877 at Aligarh.
6. Satautory Civil Service in 1879. It was also laid down that the candidates had to appear and pass the civil services examination which began to be held in England. The maximum age for these candidates were reduced from 21 to 19 years.



12.

• • Lord Ripon (1880-1884) Important events during Ripon's stint as viceroy were as follows:- 1. Repeal of Vernacular Press act, 1882. 2. Resolution in 1882 for institution of local self-government in India. 3. Constitution of the Hunter commission on education (1882). 4. The maximum age of admission to civil services raised to 21. 5. Introduction of the Ilber Bill which would authorize India judges to hear cases against the Europeans as well.	 Lord Ripon
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14.

• • Lord Dufferin (1884-1888) His period witnessed the third Anglo Burmese war which led to the accession of upper Burma. Three Tenancy Acts were passed to give greater security of tenure or to the tenants.	 Dufferin
--	---

16.

• •

Lord Lansdowne (1888-1894)

Major developments during his period are :
enactment of second factory act; demarcation of the Indo-Afghan border (Durand Line); Second Indian council Act (1892).



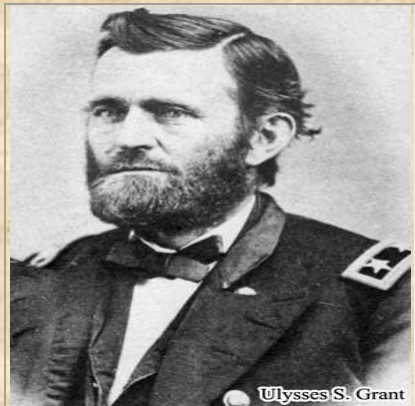
Lord Lansdowne

18.

• •

Lord Elgin II (1894-1899)

A bubonic plague in Bombay in 1896 and severe draught in Bikaner and Hissar district were some of the important events of his period.



Ulysses S. Grant

20.

• •

Lord Curzon (1899-1905)

Highlights of his period were as follows:

1. Lord Curzon set up a Famine Commission.
2. The Punjab Land Alienation Act of 1900, prohibited the sale of agricultural lands for its attachment in execution of a decree.
3. Agricultural banks were established.
4. In 1904, the cooperative credit societies act was passed.
5. The Department of agriculture was established in



1901.

6. He founded on agriculture research Institute at Pusa.

7. Commission was appointed in 1901 to consider the problems of education.

8. In order to preserve and protect ancient monuments of India, he passed the Ancient Monuments Protection Act, and Archaeological Department was established in 1901.

9. The setup of Police Commission under the Chairmanship of Sir Andrew Frazer in 1902.

10. A Criminal Investigation Department was opened in each district. In 1901 the Imperial Cadet Corps was set up.

22.

• •

Lord Minto II (1905-1910)

His stint as viceroy is famous for the Minto-Morley Reforms of 1909 which provided for separate electorate to Muslims.



24.

• •

Lord Hardinge II (1910-1916)

In the honour of King George V and Queen Mary of England, Coronation Darbar was held at Delhi. In 1911 the capital of country was announced to be shifted from Calcutta to Delhi. In 1912, Delhi became the new capital. When Lord Hardinge was heading a procession through the Chandi Chowk in his new capital, some extremist revolutionaries through a bomb burn him. The Viceroy himself escaped unhurt. The First World War broke out in 1914. In 1916, Lord Hardinge laid the foundation of the Benaras Hindu University. Madan Mohan Malaviya was the Founder-Chancellor of this university.



26.

• •

Lord Chelmsford (1916-1921)

Enactment of the Government of India, 1919 (Montague-Chelmsford Reforms) which introduced dyarchy in the provinces; enactment of Rowlatt Act (1919); the Jallianwala Bagh Tragedy (1919); and the beginning of the Non-cooperation Movement were some of the important events in his period.



28.

• •

Lord Reading (1921-26)

Held of the Non-Corporation Movement (1922); arrival of the Prince of Wales (1921); and outbreak of the Moplah Revolt (1921) was some of the events of his period.



30.

• • Lord Irwin (1926-31) The Viceroyalty of Irwin is known for 1. Appointment of Simon commission in 1928. 2. Passing of the resolution for complete independence (<i>purna smarajya</i>) in 1929. 3. Launching of the civil Disobedience movement. 4. Gandhi-Irwin Pact in 1931; 5. First Round Table Conference (1930).	
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32.

• • Lord Willingdon (1931-1936) Important events were : 1. The second Round Table Conference, 1931 ; 2. Restarting of the Disobedience Movement, 1931 3. The communal award, 1932; the Poona act; 4. Third Round Table Conference, 1932 5. The Government of India Of 1935; 6. Earthquake in Bihar on January 15, 1934.	
--	---

34.

• •

Highlights of his reign were :

1. Longest reign as viceroy of India
2. Beginning of the Second World War.
3. Coming into force of the Government of India Act 1935 with provinces going to elections.
4. Arrival of the Cripps Mission.
5. Beginning of the Quit India Movement,
6. Great Famine of Bengal (1943)

- 

• •

• •

His period is famous for the Shimla conference, 1945; arrival of the Cabinet Mission, 1946; the Constituent Assembly boycotted by the Muslim League which launched the heinous "Direct Action Day" on August 16, 1946; the Interim Government under Pt. Jawaharlal Nehru's leadership; Attlee's Declaration that his government was intended to hand over the Administration of India to her people before June 1948, even if no agreement was reached between the Congress and the Muslim League.



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• •

Lord Mountbatten, (March 1947-June 1948)

Declaration of third June, 1947; Indian Independence Act, Partition of the country between two independent states of India and Pakistan with Lord Mountbatten and Mr M.A. Jinnah as thier respective Governor generals.



Important session of Congress

Important session of Congress:

Year	Residents	Venue
1885	W.C. Bannerjee	Bombay
1886	Dadabhai Naoroji	Calcutta
1887	Badruddin Tyabji	Madras
1888	George Yule	Allahabad
1889	Sir William Wedderburn	Bombay
1890	Pheroze Shah Mehta	Calcutta
1891	P. Ananda Charlu	Nagpur
1892	W.C. Bannerjee	Allahabad
1893	Dadabhai Naoroji	Lahore
1894	Alfred Webb	Madras
1895	S.N. Banerjee	Poona
1896	Rahimtulla M Sayani	Calcutta
1897	C. Sankaran nair	Amravati
1898	Ananda Mohan Bose	Madras
1899	R.C Dutt	Lucknow
1900	N.G. Chandavarkar	Lahore
1901	D.E. Wacha	Calcutta

1902	Hasan Imam, S.N Bonerjea	Bombay, Ahmedabad
1903	Lal Mohan Ghose	Madras
1904	Sir Henry Cotton	Bombay
1905	G.K Gokhale	Benaras
1906	Dadabhai Naoroji	Calcutta
1907	Dr Rash Behari Ghosh(suspended)	Surat
1908	Dr Rash Behari Ghost	Madras
1909	Pandit Madan Mohan Malviya	Lahore
1910	Sir William Wedderburn	Allahabad
1911	Pandit B.N Dar	Calcutta
1912	R.N. Mudholkar	Bankipore
1913	Nawab Syed Mohammed Bahadur	Karachi
1914	Bhupendra Nath Basu	Madras
1915	Lord Satyendra Prasad Singha	Bombay
1916	Ambica Charan Majumdar	Lucknow
1917	Dr. Annie Besant	Calcutta
1918	Hassan Imam (special session)	-
1918	Pandit Madan Mohan Malviya	Delhi
1919	Motilal Nehru	Amritsar
1920	Lala Lajpat Rai (suspended) C.Vijayraghavachariar (annual)	Calcutta Nagpur
1921	C.R Das (in prison) Hakim Ajmal Khan(acting)	Ahmedabad
1922	Desbhandu Chittaranjan Das	Gaya
1923	Maulana Abul Kalam Azad (suspended) Muaulana Mohammad Ali(annual)	Kakinada
1924	Mahatma Ghandi	Belgaum
1925	Mrs Sarojini naida	Cawnpore
1926	S. Srinivasa Iyengar	Guwahati
1927	Dr. M A Ansari	Madras
1928	Pandit Motilal Nehur	Calcutta

1929	Jawaharlal Nehru	Lahore
1930	(no session) but Independence Day Pledge was adopted on 26th January 1930.	-
1931	Sardar Vallabhabhai Patel	Karachi
1932	R. Amritlal (session was banned)	-
1933	Mrs. J. M Sen Gupta(session was banned)	Calcutta
1934	Dr Rajendra Prasad(continued again for 1935)	Bombay
1936	Jawaharlal Nehru	Lucknow
1937	Jawaharlal Nehru	Faizpur
1938	S.C Bose	Haripur
1939	S.C Bose(re-elected for 1939)	Tripuri
1940	Maulana Abul Kalam Azad	Ramgarh
1941-45	(No session caused by arrest and Jailing)	-
1946	Acharya J. B kripalani	Merrut
1948	B. Pattabhi Sitamayya	Jaipur

Abbreviations and Interpretations

Abbreviation	Interpretations
AA	Alcoholic Anonymous
AAFI	The Amateur Athletic Federation of India
AAPSO	Afro-Asian People's Solidarity Organisation
ABC	Atomic Biological and Chemical (Warfare)
ADBS	Advance Data Broadcasting System
AGP	Accelerated Graphics Port
AICTE	All India Council for Technical Education
AIDS	Acquired Immune Deficiency Syndrome
AIFF	All India Football Federation

AIIMS	All India Institute of Medical Sciences
AINEC	All India Newspaper Editor's Conference
AMIE	Associated Member of Institute of Engineers
ANC	African National Congress
ANERT	Agency for Non-Conventional Energy and Rural Technology
APCTT	Asian and Pacific Centre for Transfer of Technology
APEC	Asia Pacific Economic Co-operation
ARMD	Age Related Muscular Disease
ARPANET	Advanced Research Project Agency Network
ASCII	American Standard Code for Information Interchange
ASEAN	Association of South East Asian Nations
ASLV	Augmented Satellite Launch Vehicle
ASSOCHAM	Associated Chamber of Commerce and Industry
AT&T	American Telegraphic and Telephone Co. Ltd
ATC	Air Traffic Control
ATM	Automated Teller Machine, Adobe Type Manager
BARC	Bhabha Atomic Research Centre
BBS	Bulletin Board Service
BCG	Bacillus Calmette-Guerin (anti TB Vaccine)
BENELUX	Belgium, Netherlands and Luxembourg
BHP	Brake Horse Power
BIFR	Board for Industrial and Financial Reconstruction
BIND	Berkeley Internat Name Domain
BIS	Bank for International Settlement
BRO	Border Road Organisation
BCWA	British Council of World Affair
C&R	Control and Reporting
C&W	Cable and Wireless
C-in-c	Commander in Chief
CAG	Comptroller and Auditor General of India

CAPART	Council for Advancement of People's Action and Rural Technology
CAT	Career Aptitude Test, Common Admission Test, Computerized Avial Tomo-graphy
CBFC	Central Board of Film Certification
CCW	Convention of Conventional Weapon
CERN	Council European Research Nucleare (European Laboratory for Nuclear Research)
CFC	Chloro Fluoro Carbon
CFL	Compact Fluorescent Lamps
CFSL	Central Forensic Science Laboratory
CIA	Central Intelligence Agency
CID	Criminal Investigation Department
CII	Confederation of Independent State
CIS	Commonwealth of Independent State
CITU	Centre of Indian Trade Unions
CNC	Computerized Numeric Control
COFEPOSA	Conservation of Foreign Exchange and Prevention of Smuggling Act
COMSAT	Communications Satellite Corporation
CONCORD	Council of North Indian States for Co-operation and Regional Development
COPRA	Consumer Protection Act
CPR	Cardio Pulmonary Resuscitation
CRIS	Centre for Railway Information System
CRISIL	Credit Rating Information Services of India Ltd
CRR	Cash Reserve Ratio
CRY	Child Relief for You
CSIR	Council of Scientific and Industrial Research
CTBT	Comprehensive Test Ban Treaty
CVR	Cockpit Voice Recorder
CARE	Co-operative for American Relief Everywhere
CASTDI	Conference on the Application of Science and Technology to the Development of India
CCS	Casualty Clearing Station
CHOGM	Common Heads of Government Meeting

CWPC	Central Water and Power Commission
CNG	Compressed Natural Gas
DDT	Dichloro-diphenyl-trichloro-ethane
DNA	Deoxyribo-nucleic Acid
DPEP	District Primary Education Programme
DTH	Direct to Home Service
E&OE	Errors and Omissions Excepted
ECA	Essential Commodities Act
ECG	Electro Cardiogram
ECR	Electron Cyclotron Resonance
EEG	Exclusive Economic Zone
EFTA	European Free Trade Association
ELISA	Enzyme Linked Immuno-Sorbant Assay
EMRC	Educational Media Research Centre
EOU	Export Oriented Unit
EPABX	Electronic Private Automatic Branch Exchange
EPZ	Export Processing Zone
ER&DC	Electronic Research and Development Centre
ERNET	Educational and Research Network
ESA	European Space Agency
ESCAP	Economic and Social Commission for Asia and the Pacific
ESMA	Essential Services Maintenance Act
ESR	Electron Spin Resonance
EURATOM	European Atomic Community
EUTELSAT	European Telecommunications Satellite
EEC	European Economic Community
ESIS	Employee State Insurance Scheme
ESRO	European Space Research Organisation
EMG	Electro Myograph
FAQ	Fair Average Quality, Frequently Asked Questions

FBI	Federal Bureau of Investigation
FBTR	Fast Breeder Test Reactor
FBW	Fly-By-Wire
FCI	Food Corporation of India, Fertilizer Corporation of India
FCRA	Foreign Contribution Regulation Act
FIDE	Federation Internationale d'Eches
FIFA	International Football Federation (Federation Internationale de football Association)
FIL	First Institutional Investors
FIR	First Information Report
FIRE	Fully Integrated Robotised Engine
FLAG	Fibre optic Link Around the Globe
FLC	Foreign Legal Consultant
FM	Frequency Modulation, Finance Ministry
FMCT	Fissile Material Cut off Treaty
FPS	Foot Pound Second, Fair Prince Shop
FII	Foreign Institutional Investor
FBTR	Fast Breeder Test Reactor
GAAP	Generally Accepted Accounting Practices
GATE	Graduate Aptitude Test in Engineering
GMT	Greenwich Mean Time
GRAM	Geo Referenced Area Management
GSLV	Geo-Synchronous Satellite Launch Vehicle
GUI	Graphical User Interface
HIV	Human Immunodeficiency Virus
HPRT	High Resolution Picture Transmissions
HSD	High Speed Diesel
HSRRSS	High Spatial Resolution Remote Sensing Satellite
IA&AS	Indian Audit and Accounts Services
IAAI	International Airport Authority of India
IAEA	International Atomic Energy Agency

ICAR	Indian Council of Agricultural Research
ICCR	Indian Council for Cultural Relations
ICMR	Indian Council of Medical Research
ICWA	Indian Council of World Affairs
ILO	International Labour Organisation
INS	Indian Newspaper Society, Indian Naval Ship
INSAT	Indian National Satellite
INTELSET	International Telecommunication Satellite
IOC	Indian Oil Corporation
IOY	I Owe You
IPC	Indian Penal Code
IPCL	Indian Petro-chemicals Corporation Ltd
ISO	International Standards Organisation
ISRO	Indian Space Research Organisation
ITBP	Indian Tibetan Border Police
ITI	Industrial Training Institute
IMEWS	Integrated Missile Early Warning Satellites
ICRISAT	International Crops Research Institute for Semi-Arid Tropics
KG	Knight of Garter, Kindergarten
LASER	Light Amplification by Stimulated Emission of Radiation
LASIK	Laser in Situ Keratomileusis
LLB	Bachelor of Law (Leagum Baccalaureus)
LMG	Large Magellanic Cloud
LPG	Liquefied Petroleum Gas
LSD	Lysergic acid diethylamide
MASER	Microwave Amplification by Stimulated Emission of Radiation
MICR	Magnetic Ink Character Recognition
Mme	Madame (Mrs)
MOSFET	Metal Oxide Semi-Conductor Field Effect Transistor
MOU	Memorandum of Understanding

MVC	Maha Vir Chakra
NASA	National Aeronautics and Space Administration
NASSCOM	National Association of Software and Service Companies
NATO	North Atlantic Treaty Organisation
NB	Nota Bene (not well)
NCERT	National Council of Educational Research
NDA	National Defence Academy
NDC	National Development Council
NGO	Non-Government Organisation, Non-Gazetted Officer
NIMHANS	National Institute of Mental Health and Neuro Science
NMR	Nuclear Magnetic Resonance
NOC	No Objection Certificate
NPT	Nuclear Non-Proliferation Treaty
NSUI	National Students Union of India
NTPC	National Thermal Power Corporation
OCD	Obsessive Compulsive Disorder
OCR	Optical Character Recognition
ODA	Overseas Development Administration
OIC	Organisation of Islamic Conference
OOP	Object Oriented Programme
Op.cit	Opero Citato (in the work cited)
OPV	Oral Polio Vaccine
OXFAM	Oxford Committee for Famine Relief
OPEC	Organisation of Petroleum Exporting Countries
OAPEC	Organisation of Arab Oil Exporting Countries
PAC	Public Account Committee
PAL	Phase Alternation Line
PCA	Professional Chess Association
Perks	Perquisites of Office
PERT	Project Evaluation and Review Technique

PIB	Press Information Bureau
PIL	Public Interest Litigation
PIN	Postal Index Number
PMUPEP	Prime Ministers Urban Poverty Eradication Programme
POW	Prisoner of War
PROTEM	Pro-tempore (for the time being)
PSLV	Polar Satellite Launch Vehicle
PSN	Processor Serial Number
PVC	Param Vir Chakra, Poly Vinyl Chloride
PARA	Parliamentarian's Action for Removal of Apartheid
PEN	(International Association of) Poets, Playwrights, Editors, Essayists and Novelists
PLF	Plant Load Factor
QR	Quantitative Restriction
R&D	Research and Development
R&M	Renovation and Modernisation
RADAR	Radio Detecting and Ranging
RAW	Research and Analysis Wing
RCC	Reinforced Cement Concrete
RD	Refer to Drawer
RDX	Research Department Explosive (Cyclotrimethylin Trinitrate)
RH	Rainwater Harvest
RNA	Ribonucleic Acid
RSE	Renewable Source of Energy
SAM	Surface to Air Missile
SASA	Self-Addressed Stamped Envelope
SAC	Space Application Centre
SAPTA	South Asian Preferential Trade Agreement
SASER	Sound Amplification by Stimulated Emission of Radiation
SAT	Scholastic Aptitude Test
SAVE	SAARC Audio Visual Exchange

SCABA	Self Contained Air Breathing Apparatus
SCSI	Small Computer Systems Interface
SIDS	Sudden Infant Death Syndrome (Crib Death)
SIFT	Sperm Intra Fallopian Transfer
SPCA	Society for Prevention of Cruelty to Animal
SPECT	Single Photon Emission Computed Technology
STQC	Standardisation Testing and Quality Control
SUNFED	Special United Nations Fund for Economic Development
SUN	Sports Utility Vehicle
SLBM	Sea Launched Ballistic Missile
STTA	Suppression of Immoral Traffic Act
T&D	Transmission and Distribution
TAFTA	Trans Atlantic Free Trade Agreement
TDA	Trade Development Authority
TERLS	Thumba Equatorial Rocket Launching Station
TIPS	Technology Information Pilot System
TIPTOP	Tape Input Tape Output
TLC	Total Literacy Campaign
TMO	Telegraphic Money Order
TNT	Tri Nitro Toluene
TOEFL	Test of English as a Foreign Language
TPM	Total Productivity Maintenance
TQM	Total Quality Management
TBD	Torpedo Boat Destroyer
TSP	Total Suspended Particulate
UCI	Universal Childhood Immunisation
UCR	Under Colour Removal
UNPF	United Nation Population Fund
UNRRA	United Nations Relief and Rehabilitation Administration
USAID	United States Agency for International Development

VAT	Value Added Tax
VHRR	Very High Resolution Radiometer
VIRUS	Vital Information Resources Under Seige
VSAT	Very Small Arrival Terminal
VD	Veneral Disease
VTOL	Vertical Take Off and Landing
WDM	World Debt Market
WIMP	Weakly Interacting Massive Particle
WWF	World Wide Fund (for nature)
XBT	Expandable Bathy Thermographic
XPB	X-Ray Photoelectron Diffraction
YMCA	Young Men's Christian Association
YWCA	Young Women's Christian Association
YMMV	Your Mileage May Vary
ZIFT	Zygote Intra Fallopian Transfer
ZIP	Zone Improvement Plan
ZOPFAN	Zone of Peace, Freedom and Neutrality
ZETA	Zero Energy Thermonuclear Agency
ZPG	Zero Population Growth

Inventions and Discoveries

Invention	Year	Inventor	country
Acetylene Gas	1862	Berthelot	France
Adding machine	1642	Pascal	France
Adhesive tape, Scotch	1930	Richard Drew	USA
Aeroplane	1903	Orville & Wilbur Wright	USA
Air conditioning	1902	Carrier	USA
Aeroplane, jet engine	1939	Ohain	Germany

Airship(non-rigid)	1852	Henri Giffard	France
Aerosol spray	1926	Erik Rotheim	Norway
Artificial heart	1957	William Kolff	Netherlands
Atomic bomb	1945	J Robert Oppenheimer	USA
atomic numbers	1913	Moseley	Britain
atomic theory	1803	Dalton	Britain
automatic rifle	1918	John Browning	USA
Bakelite	1907	Leo H Baekeland	Belgium
ballistic missile	1944	Wernher von Braun	Germany
balloon	1783	Jacques & Joseph Montgolfier	France
ballpoint pen	1888	John J loud	USA
barometer	1644	Evangelista Torricelli	Italy
battery(electric)	1800	Alessandro Volta	Italy
bicycle	1839-40	Kirkpatrick Macmillan	Britain
bicycle tyres(pneumatic)	1888	John Boyd Duniop	Britain
bifocal lens	1780	Benjamin Franklin	USA
bleaching powder	1798	Tennant	Britain
Bunsen Burner	1855	R. Willhelm von Bunsen	Germany
burglar alarms	1858	Edwin T. Holmes	USA
calculus	1670	Newton	Britain
camera, Kodak	1888	Walker Eastman	USA
canned food	1804	Appert	France
Car(Steam)	1769	Nicolas Cugnot	France
car(Petrol)	1888	Karl Benz	Germany
Carburettor	1876	Gottlieb Daimler	Germany
Cassette, Audio	1963	Philips co.	Holland
Cassette videotape	1969	Sony	Japan
Celluloid	1861	Alexander Parkes	Britain
Cement (Portland)	1824	Joseph Aspdin	Britain
Chemotherapy	1909	Ehrlich	Germany

Chronometer	1735	John Harrison	Britain
Cinema	1895	Nicolas and Jean Lumiere	France
Clock (Mechanical)	1725	I Hsing & Liang Ling Tsan	China
Cloning, DNA	1973	Boyer, Cohen	USA
Cloning, mammal	1996	Wilmut, et al	UK
Compact disc	1972	RCA	USA
Compact disc player	1979	Sony, Philips co	Japan, Netherlands
Computer, laptop	1987	Sinclair	Britain
Computer, mini	1960	Digital corp	USA
Crossword puzzle	1913	Arthur Wynne	USA
CT Scan	1973	Hounsfield	Britain
Diesel engine	1895	Rudolf Diesel	Germany
Disc brakes	1902	Dr. F Lanchester	Britain
Disc, video	1972	Phillips co	Holland
DNA, structure	1951	Crick-UK, Watson-US, Wilkins-UK	--
Dynamo	1832	Hypolite Pixii	France
Electric flat iron	1882	H.W. Seeley	USA
Electric lamp	1879	Thomas alva Edison	USA
electric motor (DC)	1873	Zenobe Gramme	Belgium
Electric motor (AC)	1888	Nikola Tesla	USA
Electric iron	1882	Henry W. Seely	USA
Electric washing machine	1906	Alva J Fisher	USA
Electromagnet	1824	William Sturgeon	Britain
Electron	1897	Thomson J	Britain
Electroplating	1805	Luigi Brugnatelli	Italy
Electronic computer	1824	Dr Alan M turning	Britain
Facsimile machine	1843	Alexander Bain	Britain
Fibre-optics	1955	Kepany	Britain
Film (moving outlines)	1885	Louise Prince	France
Film (talking)	1922	J. Engl, J. Mussolle & H Vogt	Germany

Film (musical sound)	1923	Dr Le de forest	USA
Floppy disk	1970	IBM	USA
Frequency modulation	1933	EH Armstrong	USA
Frisbee	1948	Fred Morrisson	USA
Fountain pen	1884	Lewis E. Waterman	USA
Galvanometer	1834	Andre-Marie Ampere	France
Glider	1853	Sir George Cayley	Britain
Gramophone	1878	Thomas Alva Edison	USA
Helicopter	1924	Etinne Oehmichen	France
HIV	1984	Martagnier	France
Holography	1947	Denis Gason	Britain
Hydrogen bomb	1952	Edward Teller	USA
Intelligence testing	1905	Simon Binet	France
Jet engine	1937	Sir Frank Whittle	Britain
Laser	1960	Theodore Maiman	USA
Launderette	1934	J.F. Cantrell	USA
Lift (mechanical)	1852	Elisha G Otis	USA
Lightning conductor	1752	Benjamin Franklin	USA
Locomotive	1804	Richard Trevithick	Britain
Logarithms	1614	Napier	Britain
Loom, power	1785	E cartwright	Britain
Loudspeaker	1900	Horace Short	Britain
Machine gun	1718	Richard Gatling	Britain
Magnetic recording tape	1928	Fritz Pfleumer	Germany
Match, safety	1826	John Walker	Britain
Microphone	1876	Alexander Graham Bell	USA
Microprocessor	1971	Robert Noyce & Gordon Moore	USA
Microscope, comp	1590	Z.Janssen	Netherlands
Microscopes, elect	1931	Ruska Knoll	Germany
Microwave oven	1947	Percy LeBaron Spencer	USA

Motorcycle	1885	G. Daimler	Germany
Movie projector	1593	Thomas Edison	USA
MRI	1971	Damadian	USA
Neon lamp	1910	George Claude	France
Neutron	1932	Chadwick	Britain
Neutron bomb	1958	Samuel Cohan	USA
Nylon	1937	Dr Wallace H Carothers	USA
Optical fibre	1955	Narinder Kapany	Germany
Paper	AD 105	-	China
Pacemaker	1952	Zoll	USA is
Pasteurization	1867	Lewis Pasteur	France
Pencil	1792	Lacques Nicolas Conte	France
Periodic table	1869	Mendeleyev	Russia
Photocopier	1938	Carlson	USA
Photoelectric cell	1893	Julius Elster, Hans F Geitel	Germany
Photo film, celluloid	1893	Reichenbach	USA
Photo film, transparent	1884	Goodwin Eastman	USA
Photography (on metal)	1826	J.N. Niepce	France
Photography (on paper)	1835	W.H. Fox Talbot	Britain
Photography (on film)	1888	John Carbutt	USA
Piano	1709	Cristofori	Italy
Pistol, revolver	1836	Colt	USA
Plutonium fission	1940	Kennedy, whal,Seaborg,Segre	USA
Pop-up toaster	1927	Charles Strite	USA
Printing press	1455	Johann Gutenberg	Germany
Printing (rotatory)	1846	Richard Hoe	USA
Printing (Web)	1865	William Bullock	USA
Proton	1919	Rutherford	New Zealand
Quantum theory	1900	Plank	Germany
Radar	1922	AH Taylor and Leo C Young	USA

Radiocarbon dating	1947	Libby	USA
Radio telegraphy	1864	Dr Mohlon Loomis	USA
Radio telegraphy (trans Atlantic)	1901	G Marconi	Italy
Rayon	1883	Sir Joseph Swan	Britain
Razor (electric)	1931	Col Jacob Schick	USA
Razor (safety)	1895	King C Gillette	USA
Refrigerator	1850	James Harrison, Alexandre catlin	USA
Relativity theory	1905	Einstein	Germany
Rubber (latex foam)	1928	Dunlop Rubber Co.	Britain
Rubber (Tyres)	1846	Thomas Hancock	Britain
Rubber (Vulcanised)	1841	Charles Goodyear	USA
Rubber (waterproof)	1823	Charles Macintosh	Britain
Safety pin	1849	Walter Hunt	USA
Safety razor	1903	King camp Gillette	USA
Seatbelt	1959	Volvo	Sweden
Self-starter	1911	Charles F Kettering	USA
Ship (steam)	1775	IC Perier	France
Ship (turbine)	1894	Hon Sir C Parson	Britain
Silk manufacture	50 BC	-	China
Skyscraper	1882	W Le Baron Jenny	USA
Slide rule	1621	William Oughtred	Britain
Spinning frame	1769	Sir Richard Arkwright	Britain
Spinning Jenny	1764	JamesHargreaves	Britain
Spinning Mule	1779	Samuel Crompton	Britain
Steam Engine	1698	Thomas Savery	Britain
Steam Engine(Piston)	1712	Thomas Newcomen	Britain
Steam Engine(Condenser)	1765	James Watt	Britain
Steel(Stainless)	1913	Harry Brealey	Britain
Stethoscope	1819	Laennec	French
Submarine	1776	David Bushnell	USA

Super Computer	1976	J.H Van Tassel	USA
Synthesiser	1964	Moog	USA
Tank	1914	Sir Ernest D Swington	Britain
Tape recorder	1899	Fessenden Poulsen	Denmark
Telegraph	1787	M Lammond	France
Telegraph code	1837	Samuel FB Morse	USA
Telephone, cellular	1947	Bell Labs	USA
Telephone (imperfect)	1849	Antonio Meucci	Italy
Telephone (perfected)	1876	Alexander Graham Bell	USA
Telescope	1608	Hans Lippershey	Netherlands
Television (mechanical)	1926	John Logie Baird	Britain
Television (electronic)	1927	P.T Farnsworth	USA
Television, colour	1928	John Logie Baird	Britain
Transformer	1831	Michael Faraday	Britain
Transistor	1948	Bardeen, Shockley & Brattain	USA
Transistor radio	1955	Sony	Japan
Uranium fission, atomic reactor	1942	Szilard Fermi	USA
Vacuum cleaner	1907	Spangler	USA
Videotape	1956	Charles Ginsberg	USA
Velcro(hook-and-loop-fastner)	1948	Georges de Mestral	Switzerland
Washing machine(elec)	1907	Hurley Machine co	USA
Watch	1462	Bartholomew Manfredi	Italy
Welder (electric)	1877	Elisha Thomson	USA
Windmill	600	Persian corn grinding	-
Wireless (telegraph the)	1896	G Marconi	Italy
x-ray	1895	W.K Roentgen	Germany
Zip Fastener	1891	W.L Judson	USA

World Profile

Geography:

- **Age:** 4.55 billion years old
-
- **Total Area:** 510.072 million sq km (196.940 million sq mi)
Land area: 148.94 million sq km (57.506 million sq mi)
Water area: 361.132 million sq km (139.434 million sq mi)
Coastline: 356,000 km (221,208 mi)
Note: 70.8% of the world is water, 29.2% is land.
- **Land Boundaries:** 251,480.24 km (156,262.58 mi) not counting shared boundaries twice.
- **Climate:** Two large areas of polar climates are separated by two rather narrow temperature zones from a wide equatorial band of tropical to subtropical climates.
- **Terrain:** Highest elevation is Mt. Everest at 8,850 m (29,035 ft) and lowest land depression is the Dead Sea at -411 m (-1,349 ft) below sea level. The greatest ocean depth is the Mariana Trench at -10,924 (-35,840 ft) in Pacific Ocean.
- **Land Use:**

Arable land:	10.73%.
Permanent Crops:	1%
Other:	88.27%
Irrigated land: 2,714,320 sq km (1,048,005 sq mi)	

Populations Countries, 2008		Largest Population Growth or Decline , 2008	
Country	Population (in Million)	Country	Percent
China	1,324.7	Uganda	263
India	1,149.3	Niger	261
United States	304.5	Burundi	220
Indonesia	239.9	Liberia	216
Brazil	195.1	Guinea-Bissau	205
Pakistan	172.8	Congo, Dem. Rep.	185
Nigeria	148.1	Timor-Leste (East Timor)	179
Bangladesh	147.3		

Russia	141.9	Mali	169
Japan	127.7	Somalia	166
		Angola	155
Rank Order - Birth Rates		Rank Order - Death Rates	
Country	Birth Rate(births/1000 population)	Country	Birth Rate (death/1000 population)
Niger	49.62	Swaziland	30.70
Mali	49.38	Angola	24.44
Uganda	48.15	South Africa	22.70
Afghanistan	45.82	Lesotho	22.33
Sierra Leone	45.08	Sierra Leone	22.26
Burkina Faso	44.68	Zimbabwe	21.70
Somalia	44.12	Liberia	21.45
Angola	44.09	Zambia	21.35
Congo, Dem. Rep.	43.00	Mozambique	20.29
Liberia	42.92	Niger	20.26
INDIA(Rank-87)	22.22	INDIA(Rank-150)	6.40
Ten Most Happy Countries		Ten Most UnHappy Countries	
Denmark		Zimbabwe	
Puerto Rico		Armenia	
Colombia		Moldova	
Iceland		Belarus	
Northern Ireland		Ukraine	
Republic of Ireland		Albania	
Switzerland		Iraq	
Netherlands		Bulgaria	
Canada		Georgia	

Austria		Russia	
Most Stable and Prosperous Countries		Most UnStable	
Vatican	99	Central African Republic	39
Sweden	99	Democratic Congo	38
Luxembourg	99	Chad	38
Monaco	98	Zimbabwe	38
Gibraltar	98	Haiti	38
San Marino	98	Ivory Coast	36
Liechtenstein	97	Afghanistan	36
United Kingdom	97	Sudan	35
The Netherlands	97	Somalia	29
United States(22nd)	93	Gaza and West Bank	27
Most Educated Countries in the world			
Rank	Country	Percentage of Population	
1	Canada	44.0	
2	United States	38.4	
3	Japan	37.4	
4	Sweden	33.4	
5	Finland	33.3	
6	Denmark	31.9	
7	Australia	31.3	
8	Norway	31.0	
9	New Zealand	30.9	
10	South Korea	29.5	
Corruption Percentage Index			
Position	Country	Score	
1	Denmark	9.3	
1	New Zealand	9.3	

1	Sweden	9.3
4	Singapore	9.2
5	Finland	9.0
5	Switzerland	9.0
7	Iceland	8.9
7	Netherlands	8.9
9	Australia	8.7
9	Canada	8.7
11	Luxembourg	8.3
12	Austria	8.1
12	Hong Kong	8.1
14	Germany	7.9
14	Norway	7.9
16	Ireland	7.7
16	United Kingdom	7.7
18	Belgium	7.3
18	Japan	7.3
18	USA	7.3
85	INDIA	3.4

Parliament of Different Countries

Country	Parliament
Afghanistan	Shora
Andorra	General Council
Albania	People's Assembly
Azerbaijan	Melli Majlis
Algeria	National People's Assembly

Angola	National People's Assembly
Argentina	National Congress
Australia	Federal Parliament
Austria	National Assembly
Bahamas	General Assembly
Bahrain	Consultative Council
Bangladesh	Jatiya Sansad
Belize	National Assembly
Bhutan	Tsogdu
Bolivia	National Congress
Brazil	National Congress
Brunei	National Assembly
Botswana	National Assembly
Britain	Parliament (House of Commons and House of Lords)
Bulgaria	Narodno Subranie.
Cambodia	National Assembly
Congo Democratic	Rep. of National Legislative Council
Colombia	Congress
Canada	Parliament
China	National People's Assembly
Chile	Chamber of Deputies and Senate
Comoros	Legislative Council and Senate
Costa Rica	Legislative Council and Senate
Croatia	Sabor
Cuba	National Assembly of People's Power
Czech Republic	Chamber of Deputies and Senate
Denmark	Folketing
Ecuador	National Congress
El Salvador	Legislative Assembly
East Timor	Constituent Assembly

Ethiopia	Federal Council and House of Representative
Egypt	People's Assembly
Fiji Islands	Senate & House of Representative
France	National Assembly
Finland	Eduskunta (Parliament)
Germany	Bundestag (Lower House) and Bundesrat (Upper House)
Guyana	National Assembly
Greece	Chamber of Deputies
Hungary	National Assembly
Iceland	Althing
India	Sansad
Indonesia	People's Consultative Assembly
Iran	Majlis
Iraq	National Assembly
Israel	Knesset
Italy	Chamber of Deputies and Senate
Japan	Diet
Jordan	National Assembly
Korea(North)	Supreme People's Assembly
Korea(South)	National Assembly
Kuwait	National Assembly
Laos	People's Supreme Assembly
Lebanon	National Assembly
Lesotho	National Assembly and Senate
Lithuania	Seimas
Luxembourg	Chamber of Deputies
Libya	General People's Congress
Malaysia	Dewan Rakyat and Dewan Negara
Maldives	Majlis
Madagascar	National People's Assembly

Mongolia	Great People's Khural
Montenegro	Federal Assembly
Mozambique	People's Assembly
Myanmar	Pyithu Hluttaw
Nepal	Rashtriya Panchayat
Netherlands	The Staten General
New Zealand	Parliament (House of Representative)
Oman	Monarchy
Pakistan	National Assembly & Senate
Paraguay	Senate & Chamber of Deputies
Philippines	The Congress
Papua New Guinea	National Parliament
Poland	Sejm
Romania	Great National Assembly
Russia	Duma & Federal Council
Serbia	Federal Assembly
Senegal	National Assembly
Seychelles	People's Assembly
South Africa Rep.	House of Assembly
Spain	Cortes
Sweden	Riksdag
Saudi Arabia	Majlis Al Shura
Sudan	Majlis Watani
Switzerland	Federal Assembly
Syria	People's Council
Turkey	Grand National Assembly
USA	Congress
Vietnam	National Assembly
Venezuela	National Congress
Zambia	National Assembly

Important Lines and Boundaries

Durand Line is the line demarcating the boundaries of Pakistan and Afghanistan. It was drawn up in 1896 by Sir Mortimer Durand.

Hindenburg Line is the boundary dividing Germany and Poland. The Germans retreated to this line in 1917 during World War I

Mason-Dixon Line is a line of demarcation between four states in the United State.

Marginal Line was the 320 km line of fortification on the Russia-Finland border. Drawn up by General Mannerheim.

Macmahon Line was drawn up by Sir Henry MacMahon, demarcating the frontier of India and China. China did not recognize the MacMahon line and crossed it in 1962.

Medicine Line is the border between Canada and the United States.

Order-Neisse Line is the border between Poland and Germany, running along the Oder and Neisse rivers, adopted at the Poland Conference (Aug 1945) after World War II.

Radcliffe Line was drawn up by Sir Cyril Radcliffe, demarcating the boundary between India and Pakistan. Siegfried Line is the line of fortification drawn up by Germany on its border with France.

17th Parallel defined the boundary between North Vietnam and South Vietnam before two were united.

24th Parallel is the line which Pakistan claims for demarcation between India and Pakistan. This, however, is not recognized by India

26th Parallel south is a circle of latitude which crosses through Africa, Australia and South America.

30th Parallel north is a line of latitude that stands one-third of the way between the equator and the North Pole.

33rd Parallel north is a circle of latitude which cuts through the southern United States, parts of North Africa, parts of the Middle East, and China.

35th Parallel north forms the boundary between the State of North Carolina and the State of Georgia and the boundary between the State of Tennessee and the State of Georgia, the State of Alabama, and the State of Mississippi.

36th Parallel forms the southernmost boundary of the State of Missouri with the State of Arkansas.

36°30' Parallel north forms the boundary between the Tennessee and the Commonwealth of Kentucky between the Tennessee River and the Mississippi River, the boundary between Missouri and Arkansas west of the White River, and the northernmost boundary between the Texas and the Oklahoma.

37th Parallel north formed the southern boundary of the historic and extralegal Territory of Jefferson.

38th Parallel is the parallel of latitude which separates North Korea and South Korea.

39th Parallel north is an imaginary circle of latitude that is 39 degrees north of Earth's equatorial plane.

40th Parallel north formed the original northern boundary of the British Colony of Maryland.

41st Parallel north forms the northern boundary of the State of Colorado with Nebraska and Wyoming and the southern boundary of the State of Wyoming with Colorado and Utah.

42nd Parallel north forms most of the New York - Pennsylvania Border.

43rd Parallel north forms most of the boundary between the State of Nebraska and the State of South Dakota and also formed the northern border of the historic and extralegal Territory of Jefferson.

The Parallel 44° north is an imaginary circle of latitude that is 44 degrees north of the Earth's equatorial plane.

45th Parallel north is often the halfway point between the Equator and the North Pole. The 45th parallel makes up most of the boundary between Montana and Wyoming.

49th Parallel is the boundary between USA and Canada.

Holy Places World

Christianity	Bethlehem, Israel: birthplaces of Jesus Nazareth, Israel: where Jesus lived and began ministry Jerusalem, Israel: where the early Church was started
Catholic	The Vatican: also known as "Vatican City" and the "The Holy See" (an independent state within Rome, Italy)
Eastern Orthodox	Constantinople, Turkey: seat of the Patriarchate of Constantinople Mt. Athos - Mt. Athos is a peninsula in eastern Greece (near Thessaloniki) that is extremely revered by Orthodox believers. It is inhabited exclusively by monastics. There are twenty large monasteries plus countless small sketes, brotherhoods and hermitages. It is a major pilgrimage sight for Orthodox males.

Anglican	Canterbury, England: seat of the Archbishop of Canterbury
Latter-day Saints	Salt Lake City, Utah: World headquarters of Church of Jesus Christ of Latter-day Saints; site of Salt Lake Temple, Temple square, Mormon Tabernacle, etc Palmyra, New York: site of First Vision; city where Book of Mormon was first printed. Kirtland, Ohio: site of first Latter-day Saint City; Ist Temple Nauvoo, Illinois: site of second Latter-day Saint city; 2nd temple (Ist full-service temple)
Islam	Mecca, Saudi Arabia: destination of the hadj (or hajj) Medina, Saudi Arabia Jerusalem, Israel
Hinduism	Varanasi (Banaras), India - on the banks of the River Ganga
Buddhism	Lopburi, Nepal: birth place of the Buddha Bodh Gaya: Where the Buddha reached enlightenment Sarnath: Where the Buddha preached his first sermon
Juche	P'yongyang, North Korea- seat of government; headquarters of the Juche Idea
Sikhism	Amritsar, Punjab, India - site of Golden Temple
Judaism	Jerusalem, Israel: Holy City, site of the historic temple, Wailing Wall
Baha'i Faith	Haifa, Israel: world headquarters; site of the holy historic events
GLBT	Stonewall Inn, New York City: birthplace of the modern GLBT-right movement (1969)
Tenrikyo	Tenri-shi, Japan: holy city and headquarters of Tenrikyo
Jainism	Palitana, Gujrat, India: Where 838 Jain Temple are on one mountain.

Famous Wars and Battles

Battle of Salamis (480 BC): The Greek fleet defeated the Persians.

Battle of Pharsalus (48 AD): Caesar defeated Pompey

The Crusades (11th - 13th Centuries): Military expeditions of the Christians in Western Europe to get back the Holy lands from Muslims; result; the Holy city remained with Turks.

Hundred Years War (1338-1453): Fought between France and England; came to an end by heroism of Joan of Arc who was burnt Alive.

Anglo - Spanish War of the Defeat of Spanish Armada (1588): The British fleet under Howard and Drake defeated the Spanish fleet Armada.

Battle of Gibraltar Bay (1606-37): The Dutch defeated the Spaniards and the Portuguese.

Thirty Years War (1618-48): A politico-religious struggle; included Bohemian War; Danish War and Swedish War; result; Calvinism was finally granted recognition.

Seven Years of Anglo-French War III (1756-63): Fought by Britain and Prussia against Austria, France and later Russia; the Treaty of Paris brought an end to it.

Battle of Bunker Hill: The first battle of the War of American Independence; fought at Charlestown, Boston.

American War of Independence (1776-83): George Washington defeated the British forces; America became independent; independence of British colonies recognised at the Peace of Paris (1783).

Battle of Pyramids (July 1798): Napoleon emerged victorious over the Mameluke rulers of Egypt.

Battle of Nile (August 1798): The British fleet under Lord Nelson defeated the French fleet and established their supremacy over the Mediterranean Sea.

Battle of Austerlitz (1805): Napoleon defeated Austria and Russia.

Battle of Trafalgar (October 1805): The British fleet under Lord Nelson defeated the combined French and Spanish fleet under Villeneuve; Britain won but Nelson was killed; Napoleon's scheme of invading England failed.

Battle of Leipzig or Battle of Nations (1813): Napoleon was defeated by the English and the Allies; he abdicated in the following year.

Battle of Waterloo (1815): The British under Duke of Wellington (Sir Arthur Wellesley) defeated the French under Napoleon; Napoleon was captured and exiled to St. Helena where he died.

Opium War (1839-42): Fought between Britain and China; immediate cause: Chinese protest over opium import into China by the British.

Crimean War (1853-56): War declared against Russia by Turkey in 1853, Britain and France in 1854 and Sardinia in 1855; Russia defeated.

American Civil War (1861-65): Northern states of America under Abraham Lincoln defeated the Southern states and established a Federal State; cause: Anagonism between the agricultural, slave-owning South and the industrial North.

Spanish-American War (1898): The war fought by the USA and Cuban revolutionaries against Spain to free Cuba from Spanish rule; result: Cuba came under the US forces.

Battle of Omdurman (1898): The British and Egyptian forces defeated the forces of Khalifa (Mehdists.)

Russo-Japanese War (1904-05): Russia defeated; Treaty of Portsmouth (1905) brought an end to the war; also known as the Battle of the Sea of Japan.

Balkan Wars I and II (1912-13): In the Balkan War I, the Balkan countries defeated Turkey; while in Balkan War II, Romania defeated Bulgaria.

World War I (1914-18): Root Causes: Austria-Serbia rivalry and Franco-German rivalry; immediate cause: assassination of the heir to the Austrian throne by a Serb; the warring sides were: Austria, Bulgaria, Germany, Hungary and Turkey (Central Powers) against Belgium, England and France, and later Italy, Russia and USA (Allied Powers); **Result:** Central or Axis Powers were defeated; the Treaty of Versailles (1919) brought an end to the War.

Spanish Civil War (1936-39): Fought between Fascist and republican forces; rebels were helped by Germany and Italy, while the government was aided by Russia and Mexico.

World War II (1939-45): Resulted due to the unjust Treaty of Versailles as both Germany and Italy were dissatisfied with it; rise of fascist forces, such as Nazis in Germany; imperialism of England and France; and Japan's expansionist ambitions; warring factions; Germany, Italy and Japan (Axis Powers) against Britain, France, Russia, USA, Poland etc. (Allied Powers); **Result:** Allied Powers emerged victorious; Germany divided, emergence of Russia as a big Power.

Algerian War of Independence (1947-62): The war was fought against French with which Algeria had been politically unified.

Six-Day War (1967): Israel defeated the combined powers of Egypt, Syria and Jordan and occupied Gaza Strip, Syria's Golan Heights and the West Bank.

Iran-Iraq War (1980-88): Occurred due to boundary disputes between two countries; heavy losses on both sides; a ceasefire in August 1988.

Falklands War (1982): The war was fought between the British and Argentine forces over the claim on the Falklands Islands in the South Atlantic Ocean; British regained control of the Islands.

Gulf War (1991): Followed the Iraqi invasion of Kuwait; a coalition of about 40 countries, including the UK and the USA, defeated Iraq.

Solar System Facts

Solar System: Some important Facts

Biggest Planet	Jupiter
Smallest Planet	Mercury
Nearest Planet to Sun	Mercury
Farthest Planet to Sun	Neptune
Brightest Planet	Venus

Nearest Planet to Earth	Venus
Hottest Planet	Venus
Coldest Planet	Neptune
Red Planet	Mars
Biggest Satelllite	Ganymede
Smallest Satelllite	Deimos
Blue Planet	Earth
Morning Star	Venus
Evening Star	Venus
Planet with a Red Spot	Jupiter
Brightest planet outside Solar System	Sirius (Dog Star)
Closet Star of Solar System	Proxima Centauri
Fastest rotation in Solar System	Jupiter
Slowtest rotation in Solar System	Venus
Fatest revolution in Solar System	Mercury
Slowtest revolution in Solar System	Neptune

Solar Family: Some important Facts

Member	Revolution period(Days)	Rotation period(Days)	No. of Satellites	Density (Water=1)
Mercury	88	58.65	0	4.80
Venus	224.7	257	0	4.85
Earth	365	1.0	1	5.52
Mars	687	1.03	2	3.95
Jupiter	4333	0.41	63	1.33
Saturn	10759	0.43	60	0.69
Uranus	30686	0.45	27	1.36
Neptune	60188	0.66	13	1.30

Famous Explorations

Achievement	Explorer (Year)	Nationality
Possible the first European landfall in North America	Ericson, Leif(1003)	Norse
Travels in Central Asia and China	Polo, Marci (1271-1295)	Italian
Voyage around the Cape of Good Hope	Dias, Bartholomew (1487)	Portuguese
Exploration of the Caribbean	Columbs, Christopher (1492-1504)	Italian
Landfall in Canada, with his Brother Sebastian	Cabot, John (1497)	Italian
First to sail around Africa to India	DaGama Vasco (1497-98)	Portuguese
First sea journey around the world	Magellan	Portuguese
Conquest and Exploration of Mexico	Cortes, Fernando (1519-1521)	Spanish
Conquest and Exploration of Peru	Pizarro Francisco (1530-1538)	Spanish
Discovery of Tasmania and New Zealand	Abel Janszoon (1642)	Dutch
Exploration of the South Pacific	Cook, James (1768-1779)	English
Exploration of Southern and Central Africa	Livingstone, David	Scottish
First north-south crossing of Australia	Burke, Robert O'Hana (1860-1861)	Irish
Exploration of Central Africa	Stanley, Henry Morton (1874-1889)	Welsh
First man to reach the North Pole	Peary, Robert E (1909)	American
First man to reach the South Pole	Amudsen Ruald (1911)	Norwegian
First man to orbit the Earth	Gagarian, Yuri (April 1961)	Russian
First man to step onto the Moon	Armstrong, Neil (July 1969)	American

World War I

Background: After the dismissal of Bismarck, the young Kaiser, William II, of Germany sought to build a supreme Navy to dominate the Atlantic and to push towards the East. This was known as his policy of Drang mach Osten. Germany's rival was the Triple Etente, formed between Britain, France and Russia during the period of Armed Peace (1905-13) in Europe.

It was Germany's ambition to be a world power but she found herself thwarted in every direction. She was determined to have her place in the sun and for this purpose, she acquired a dominating influence over Turkey and committed herself to support the Balkan policy of Austria. She looked upon England as her greatest enemy.

Immediate Cause of War: Archduke Ferdinand, the Austrian heir-apparent to the throne, was murdered in the street of Serajevo, the capital of Bosnia, an annexed territory of Austria, by a

Serb national. Austria held Serbia responsible for this act and delivered an ultimatum and moved for war. This brought Russia into the field as she felt a kinship with Slavic People. Russia's entry brought Germany to the side of Austria. One by one France and England, both signatories of the Triple Entente, entered the war.

Main Contestants of World War I: There were two camps. One was the Central Powers comprising Germany, Austria, Hungary, Turkey and Bulgaria and the other was the Allied Powers - England, France, Belgium, Serbia, Russia and Japan. Italy and the USA joined the Allies in 1915 and 1917 respectively.

Results of the War: The Central Powers were completely defeated by the Allied Powers and an Armistice was signed on November 11, 1918, followed by a Peace Conference at Paris and the Treaty of Versailles in 1919-the principal treaty, curbing the power of the German Empire.

The Treaty of Versailles: It was signed in June, 1919. According to this treaty boundaries of European countries were re-arranged and many new states viz Czechoslovakia, Yugoslavia, Poland, Lithuania, Estonia, etc were formed.

At the instance of Woodrow Wilson, the American President, the League of Nations was established on Jan 10, 1920, "to prevent all future wars."

Wilson's Fourteen Points: In an address to the Congress in January, 1918, American President Wilson outlined the basis of a peace settlement-his famous Fourteen Points- for lasting peace in the world:-

1. There was to be no more secret diplomacy.
2. Freedom of the Seas
3. Removal of economic barriers of international trade.
4. Reduction of Armaments
5. Impartial adjustment of all colonial claims on the basis of the interest of the subject population.
6. National self-determination
7. Establishment of a League of Nations for the purpose of affording mutual guarantees of political independence and territorial integrity of great and small State alike.

The remaining points dealt with the formation of new boundaries and new States on the basis of nationality and demanded that Germany must evacuate all lands she had forcibly occupied.

World War II

Background: The Treaty of Versailles itself sowed the seeds of another world conflagration. It was such an unjust Treaty that the Allied Powers sought territorial and economic benefits brushing aside the idealistic war axioms. The discontented Germany during the great slump period of the world economy, when she had been suffering from a terrible economic crisis, brought onto its political stage a person who promised to build a new Germany and free the country of the shackles of the Versailles Treaty.

In 1933, Adolf Hitler became the Chancellor of Germany and in the following year he became the President of the German Republic after the death of Von Hindenburg. To tear away the Treaty of Versailles, he joined hands with Mussolini, the Fascist leader of Italy, and both began their verbal crusade against Big Powers who had mono-polished whole colonies of the world.

One by one, Hitler broke the terms of the Versailles Treaty by occupying Sarr, Alsace-Lorraine, Sudetenland and Czechoslovakia. This onward march of Hitler also alarmed Britain and France. Muussolini attacked Abyssinia and Japan attacked China. This aggressive mood of the Fascist Powers got its fullest expression when they formed an Axis providing for mutual aid in the international sphere.

Immediate Causes of the World War II: Encouraged by his threats and blistering, which had brought success in the past, Hitler, demanded from Poland a corridor to establish a direct link with east Prussia. Britain and France guaranteed aid to Poland in the event of any aggression against her and started friendly negotiations with Russia.

Britain's negotiations with Russia, however, failed and Hitler, taking advantage of this failure, succeeded in signing a Nonaggression Pact with Russia. Being convinced that Britain would now fight for Poland, he attacked Poland on Sept 1, 1939, to side with Poland in case of aggression against her, declared war against Germany on Sept 3, 1939.

Main Contestants of World War II : Germany, Italy and Japan, called the Axis Powers, were on one side and Britain, France, Russia, USA, Poland and others, called Allies, were on the other side. The war ended on August 14, 1945.

Result of World War II: The ravages of the war were so complex and widespread that no formal Peace Conference could be held immediately after the surrender of Germany and Japan. The meetings of he Big Three (Russia, UK and USA) at Cairo, Teheran, Yalta and Potsdam formulated general principles, which ultimately led to disagreements between the victorious Powers. Germany was divided into four zones, two States - East Germany under the Soviet Union and West Germany under the Allies. Another noteworthy sequel to this war was emergence of USSR as one of the biggest powers of the world, while the United Kingdom and France lost much of their past glory.

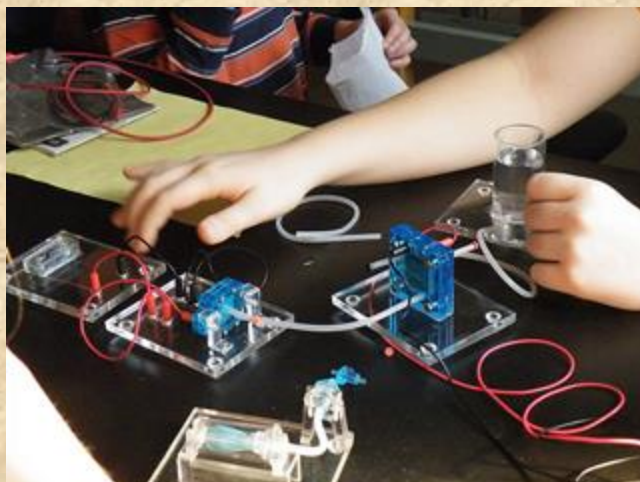
Nearly all the East European countries embraced Communism and communist rule was established in the Chinese mainland also.

Physics Facts

Introduction

to

Physics



The word **Physics** comes from the Greek word *physis* mini nature. Its Sanskrit equivalent is *Bhautika* i.e. the physical world. In Physics we attempt to explain diverse physical phenomena in terms of a few concepts and laws. The effort is to see the physical world as manifestation of some universal laws in different domains and conditions.

In Physics we study different forms of matter, their properties and the transformations that they undergo. It is a major signs dealing with fundamental constitutes of universe, the forces they exert on one another and the results produced by these forces. Physics a basic discipline

in the category of natural sciences which also includes other disciplines like chemistry and biology.

Sometimes in modern Physics in more sophisticated approach is taken that incorporates elements of three states; it relates to the laws of symmetry and conservation, such as those pertaining to energy, momentum, charge and parity.

Major branches of Physics

Acoustics	It is the study of production and properties of sound
Atomic Physics	It is the study of structure and properties of an atom.
Biophysics	It applies tools of physics to life processes
Cryogenics	It is the study of low-temperature
Electrodynamics	It is the analysis of relationship between electrostatic and magnetic fields.
Fluid Physics	It deals with movement of liquid and gases
Mechanics	It deals with behaviour of object and system to various forces.
Nuclear/Modem Physics	It is concerned with structure and properties of atomic nucleus and their reactions.

Famous Scientists And Their Contributions

Technologies	Scientific Principal(s)
Steam engine	Laws of thermodynamics
Nuclear reactor	Nuclear fission

Radio and television	Propagation of electromagnetic waves
Computers	Distal logic
Lasers	Light amplification by stimulated emission of radiation (population inversion)
Production of ultra-magnetic fields	Superconductivity
Rocket propulsion	Newton's law of motion
Electric generator	Farday's Laws of electromagnetic induction
Hydroelectric power	Conversion of gravitational potential energy into electric energy
Aeroplane	Bernoulli's principle in fluid dynamics
Particle accelerator	Motion of charged particles in electromagnetic fields
Sonar	Reflection of ultrasonic waves

Four Fundamental Forces In Nature

There are four fundamental forces in nature that govern the diverse phenomena of the macroscopic and microscopic world. These different type of forces are:

1. Gravitational force
2. Electromagnetic force
3. Strong nuclear force
4. Weak nuclear force

The unification of different forces/domains in nature is a basic quest in physics, the gravitational force is the force of mutual attraction between any two object's by virtue of their masses. It is a universal force. The electromagnetic force is the force between charged particles. The strong nuclear force is the force between protons and neutrons. The weak nuclear force appears only in certain nuclear processes such as *beta*-decay of nucleus.

Fundamental Forces Of Nature

Forces	-Relative Strength	Ranges	Operates Among
Gravitational force	10^{-38}	Infinite	All objects in the universe
Weak nuclear force	10^{-13}	Very short, within nuclear size ($\sim 10^{-15}$)	Elementary particles
Electromagnetic force	10^{-2}	In finite	Charged particles

Strong nuclear force	1	Very short, within nuclear size ($\sim 10^{-15}$)	Nucleons
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Name of the Physicists	Years	Achievements in unification
Issac Newton	1687	Unified celestial and terrestrial mechanics showed that the same laws of motion and the law of gravitation apply to both the domains.
Hans Christian Oersted Michael Faraday	1820 1830	Showed that electric and magnetic phenomena are inseperable aspects of a unified domain; electromagnetism.
James Clerk, Maxwell	1873	Unified electricity, magnetism and optics; showed that the light is an electromagnetic wave
Sheldon Glashow, Abdus Salam, Steven Weinber	1979	Showed that the week nuclear force and the electromagnetic force could be viewed as different aspects of a single electro-week force.
Carlo Rubia, Simon Vander Meer	1984	Verified Sperry mentally the predictions of that theory of electro-week force.

Names	Major Contribution/Discoveries	Country of Origin
Isaac Newton	Universal Law of gravitation; Laws of Motion; Reflecting Telescope	U.K
Galileo Galilei	Law of Inertia	Italy
Archimedes	Principle of Buoyancy; Principle of the lever	Greece
James Clerk Maxwell	Electromagnetic theory; Light and electromagnetic wave	U.K.
W.K. Roentgen	X-rays	Germany
Marie Sklodowska Curie	X-rays	Poland
Albert Einstein	Law of Photoelectricity; Theory of relativity	Germany
S.N. Bose	Quantum Statistics	India
James Chadwick	Neutron	U.K.
Niels Bohr	Quantum Model of Hydrogen atom	Denmark
Ernest Rutherford	Nuclear model of atom	Denmark
C. V Raman	Inelastic scattering of light by molecules	India
Christian Huygens	Wave theory of light	Holland
Michael Faraday	Laws of electromagnetic Induction	U.K

Edwin Hubble	Expanding Universe	U.S.A
Homi Jehangir Bhabha	Cascade process in cosmic radiation	India
Abdus Salam	Unification of weak and electromagnetic interactions	Pakistan
R.A. Millikan	Measurement of electronic charge	USA
Ernest Orlando Lawrence	Cyclotron	U.S.A
Wolfgang Pauli	Quantum Exclusion Principles	Austria
Louis Victor de Broglie	Wave Nature of matter	France
J.J. Thomson	Electron	UK
S. Chandrasekhar	Chandrasekhar limit, structure and evolution of stars	India
Lev Davidovich Landau	Theory of condensed matter; Liquid Helium	Russia
Heinrich Rudolf Hertz	Electromagnetic waves	Germany
J.C. Bose	Ultra short radio waves	India
Hideki Yukawa	Theory of Nuclear forces	Japan
Werner Heisenberg	Quantum Mechanics; Uncertainty Principles	Germany
Victor Francis Hess	Cosmic Radiation	Austria
M.N. Saha	Thermal Ionization	India
G.N. Ramachandran	Triple Helical Structure of Proteins	India

Measurement facts

Physics is a science of measurement. Lord Kelvin (1824-1907), one of the outstanding physicists have emphasised the importance of measurement.

Laws of physics are expressed in terms of physical quantity such as timing, force, temperature, density and numerous others. Physical quantities are often divided into fundamental and derived quantities. **Derived quantities** those whose definitions are based on other physical quantities e.g speed, area, intensity, etc. **Fundamental quantities** are not defined in the terms of other physical quantities, e.g. Length, mass and time etc.

Physical quantities may, in general, be divided into two categories

1. **Scalar quantities:** A scalar quantity is one which has only magnitude. Mass, length, time, volume, speed, energy, work etc are examples of scalar quantities.

2. **Vector quantities** : A vector quantity has both magnitude and direction. Velocity, momentum, force, acceleration etc are examples of vector quantities.

Measurement is the comparison of an unknown quantity with known fixed quantity.

Measurement involves comparison of the quantity to be measured with a reference standard. The reference standard of the measurement is what we call a unit.

for example unit of density is
 $\text{Density} = \text{Mass}/\text{Volume} = \text{Mass}/(\text{Length})^3 = \text{Kg}/\text{m}^3$

SI Base Quantities And Units

Base quantities	Units	Symbol is	Definitions
Length	meter	m	The meter is the length of the path travelled by light in vacuum during a time interval of $1/299,792,458$ of a second. (1983)
Mass	kilogram	kg	The kilogram is equal to the mass of international prototype of the kilogram (a platinum-iridium alloy cylinder) at international bureau of weights and measures, at Severs, near Paris, France. (1889)
Time	second	s	The second is the duration of 9,192,631,770 periods of the radiation corresponding to the transition between two hyperfine levels of the ground state to the Cesium-133 atom. (1967)
Electric current	ampere	A	The ampere is that constant current, if maintained into straight parallel conductors of in finite length, of negligible circular cross-section, and placed 1 m apart in a vacuum, would produce between these conductors of force equal to 2×10^{-7} newton per metre of length. (1948)
Thermodynamic temperature	Kelvin	K	The kelvin, is the fraction $1/273.16$ of the thermodynamic temperature of the triple point of water. (1967)
Amount of substance	Mole	mol	The mole is the amount of substance of a system, which contains as many elementary entities as there are atoms in 0.012 kilogram of carbon-12. (1971)
Luminous intensity	candela	cd	The candela is the luminous intensity, in a given direction, of a source that emits monochromatic radiation of frequency 540×10^{12} Hertz and that has a radiant intensity in the direction of $1/683$ watt per steradian. (1979)

▪ System of Units
▪ Unit of Length - Meter
▪ Unit of Mass - Kilogram(kg)
▪ Unit of Time - Second(s)
▪ Unit of Temperature:-Celsius ▪ The temperature scale adopted by the 1960s conference was based on a fixed temperature point, the triple point of water, at this point solid, liquid and gas are in equilibrium. The temperature of 273.16 K was assigned to this point. The present point of water was designated as 273.15 K, equalling exactly 0° on the Celsius temperature scale. The Celsius scale, which is identical to centigrade scale, is named after the 18th century Swedish astronomer Anders Celsius, who first proposed the use of the scale in which the interval between the freezing and boiling points of water is divided into hundred degrees. By international agreement, the term Celsius has officially replaced centigrade.
▪ Unit of Current – Ampere ▪ The ampere was defined as the constant current in a conductor when one coulomb charges flowing in one second.
▪ Unit of Intensity of light – Candela ▪ The International unit of light intensity is Candela, was originally defined as 1/60 of the light radiated from the square centimetre of a black body, a perfect radiator that absorb no light, held at the temperature of freezing platinum..
▪ Unit of Intensity of light – Candela ▪ The International unit of light intensity is Candela, was originally defined as 1/60 of the light radiated from the square centimetre of a black body, a perfect radiator that absorb no light, held at the temperature of freezing platinum.
▪ Unit of amount of substance – Mole ▪ Mole is the base unit of the International system of units, defined as the amount of a substance that contains as many elementary particles (atoms, molecules, ions, electrons or other particles) as the number of carbon atoms in 0.012 kg (12 g) of carbon-12

Matter and Properties

Anything that occupies space, has weight and mass and which we perceive through our senses- touch, sight, hearing, smell and taste is called matter. Matter is made up of atoms or molecules.

Is energy matter: Electricity, light and heat are forms of energy. They might that take up space but not having weight. Electricity as a form of energy is closely related to atom which is matter. Heat is the kinectic energy of molecules which again is matter.

Solids	Liquids	Gases
Solids are formed when attraction between individual molecules is greater than the energy causing them to move apart	Liquids are formed when energy of system is increased and rigid structure in solid shape is broken down	Gasses are formed when energy of system exceeds the attraction of molecules
They have definite shape and size	They have definite volume and takes the shape of container	They have no definite shape and volume.

General properties of matter

1. **Matter occupies space** : In this universe for bodies occupies space. The space occupied by a body is called its volume.
2. **Matter has weight** : For bodies posses mass. Each body is attracted towards the centre of Earth.
3. **Matter has inertia**: Nobody can change its state of rest for of uniform motion by itself. The property by which the body remains in its state of rest for of uniform motion is called inertia.
4. **Matter offers resistance**: It is not possible to walk through a rigid wall or against a wind.
5. **Matter is divisible**: All substances, solids, liquids or gases can be divided and subdivided into smaller particles.
6. **Compressibility**: All substances can be compressed to a more or less extent by the application of force. Compressibility depends upon the center molecules spacing. The spacing is different for different solids.
7. **Porosity**: All substances are porous that is they have center molecules spaces. Matters are less porous than wood.

Archimedes principle
This principle states that when a solid body is wholly or partially immersed in a fluid (liquid or gas) it experiences and have vowed thrust or buoyant force equal to the weight of the fluid displaced by the body. This is also called as principal of buoyancy. It is due to uptrust that object apparently weight less when immersed in fluid. A hydrometer is an instrument built on the principle of flotation. The deeper the hydrometer floats in the liquid, the smaller is the relative density of the liquid

Pressure Facts

Pressure : It is the force divided by the area on which it acts, that is the force per unit area at any point determines the pressure at that point.

Pressure (p) = Force (F)/Area (A)

The pressure is a scalar quantity. Its units are N/m^2 . This unit is also called pascal(Pa)

Manometer : Instrument used to measure pressure of gas and vapour.

Altimeter : Sensitive instrument that indicates altitude.

Pascal's law

The French scientist Blaise Pascal discovered in the 17th century that pressure applied any part of a liquid in a closed vessel is transmitted with equal intensity to all parts of the liquid and acts in all directions. This principle is known as Pascal's law

Bernoulli's principle-Fluids in motion

For continuous flow of liquid through a pipeline of nonuniform cross-section, the velocity of the liquid is greater in the narrow parts of the pipe. Bernoulli (1654-1705) observed a very interesting phenomenon. He found that in a liquid flow (this also holds true for gas flow), the pressure is lower in the region where the flow is faster and stop this is called Bernoulli's principle.

This can also be stated as: *When the speed of a fluid (liquid or gas) in a pipeline increases, the pressure decreases and conversely when the speed of a fluid decreases, the pressure increases.*

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Let me know any type of error, feel free to drop an e-mail on naiyarimam88@gmail.com